An Exploratory Study of the Relation of School-Business Partnerships and Developmental Assets to School Success Among Urban High School Students

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Background

Studies show that students need more than academic instruction to succeed in school. They also need such experiences as a caring school environment, close relationships with staff, plentiful opportunities to explore their interests and talents, and connections to the "real" world outside of school (Newmann, Secada, & Wehlage, 1995; Starkman, Scales, & Roberts, 1999). Increasingly, the mission of schools is seen not just as promoting academic success, but as preparing students for success in the labor market, promoting students' overall physical and mental health, and stimulating their citizenship and community involvement (Oakes, Quartz, Ryan, & Lipton, 2000; Southwest Educational Development Laboratory, 1999)

Moreover, research repeatedly demonstrates that those multiple facets of success are associated—they do not occur in isolation from each other (see review in Scales & Leffert, 1999), and they are nurtured from common roots in students' family, school, and community lives, including sectors such as civic organizations, businesses, youth-serving agencies, congregations, and others. It is not just the schools or parents who are responsible for creating the conditions for this more broadly defined and complex notion of success; the community is also recognized as a unit of accountability.

Studies have demonstrated that cognitive development (evidenced by academic success), physical and emotional development (evidenced by good physical and mental health), and social development (evidenced by prosocial behavior and community connectedness) are intimately related (Benson, Scales, & Mannes, 2002). Therefore, communities must be attentive to young people's overall development, and must build more frequent and sturdy bridges among the pieces of young people's lives that often are viewed as separate: family, school, and community, including businesses (Lawson & Briar-Lawson, 1997); Davies, 1996).

School-Community Partnerships

In response to these research learning's, the 1990s saw a growth in the number and complexity of school-community partnerships (Hokins, 1995; Melaville & Blank, 1993; Melaville, 1998; When school is out, 1999). According to the 2000 national survey by Partners in Education, *Partnerships 2000: A Decade of Growth and Change*, at least several hundred thousand partnerships are now being implemented across the country as mechanisms to promote greater student success, with businesses the most common partner for schools.

Descriptive data on school-business partnerships are relatively plentiful. For example, we know that most partnerships are in urban areas, that most have focused until very recently on components of the "school-to-work" progression, such as job shadowing, and that African-American youth are more likely than other students to be exposed to such experiences (Scales, Merenda, Vraa, St. Amand, Mannes, & Melnick, 2000; Grobe, Curnan, & Melchoir, 1993).

We also know that there are some stellar examples of school-business partnerships that are broadly conceived. For example, General Electric's College Bound program has significantly increased the college-going rate in 70% of communities in which those school-business partnerships operate, with the most long-standing success stories using a whole school focus (Bailis, Melchior, Sokatch, & Sheinberg, 2000). Nevertheless, the research suggests that until quite recently, most school-business partnerships have been focused on relatively narrow projects and goals rather than on the broader promotion of students' healthy development (Scales, Merenda, et al., 2000;).

In so doing, they attend relatively little to other elements of adolescent development--physical, emotional, social—that create the necessary conditions in which students can achieve.

Why are these partnerships important? First, in public opinion polls, Americans say businesses are one of the key institutions with promise for helping improve students' school success (All for all…, 2000). The American people are counting on business partnerships with schools to produce results. Second, businesses already are among the most common partners of schools, investing significant human and financial resources in the pursuit of better student achievement levels. If there is a relatively untapped strategy that can increase the options for promoting student success through partnerships, it is crucial to consider that strategy.

The potential impact of school-business partnerships and its relationship to developmental assets is illustrated further by the results of a Search Institute survey of more than 32,000 6th-12th graders in communities participating in the "America's Promise" initiative (unpublished Search Institute data):

- scores on the survey's six-item "career preparation" scale were moderately correlated with the assets of "achievement motivation" (.37) and "bonding to school" (.34), as well as modestly with self-reported school grades (.20).
- students who scored above the median on the career preparation scale, compared to those at or below the median, reported significantly better mean grades and significantly greater experiencing of each of the Commitment to Learning assets (achievement motivation, school engagement, hours of homework done per day, bonding to school, and hours per week reading for pleasure).

Search Institute's America's Promise surveys do not directly measure the features or impact of school-business partnerships. However, 1999-2000 school year findings on relevant issues do not bode well for the kinds of changes school-business partnerships are trying to bring about:

- only 30% of students have a mentor of any kind with whom they spend time
- only a little more than half (57%) ever have talked with an adult other than their parents about jobs and careers
- only half have ever discussed a job they think they might like with a person who actually has such a job.

Developmental Assets

When young people experience positive connections among these parts of their lives, they are more likely to build what Search Institute has called "developmental assets" that can help them succeed, in school and in other ways. Developmental assets are the key relationships, opportunities, values, skills, and self-perceptions all young people need to become self-regulating, responsible, caring, and productive. They serve as a research-based and practice-oriented framework of developmental strengths. Search Institute has identified 40 developmental assets grouped into eight categories.

Table 1

Search Institutes 40 Developmental Assets			
Asset Type	**Asset Name**	**Definition**	
External Assets	Support	1. Family support 2. Positive family communication 3. Other adult relationships 4. Caring neighborhood 5. Caring school climate 6. Parent involvement in schooling	Family life provides high levels of love and support. Young person and her or his parent(s) communicate positively, and young person is willing to seek advice and counsel from parent(s). Young person receives support from three or more non-parent adults.
			Young person experiences caring neighbors. School provides a caring, encouraging environment. Parent(s) are actively involved in helping young person succeed in school.
	Empowerment	7. Community values youth 8. Youth as resources 9. Service to others 10. Safety	Young person perceives that adults in the community value youth. Young people are given useful roles in the community. Young person serves in the community one or more hours per week. Young person feels safe at home, at school, and in the neighborhood.
	Boundaries and Expectations	11. Family boundaries 12. School boundaries 13. Neighborhood boundaries 14. Adult role models 15. Positive peer influence 16. High expectations	Family has clear rules and consequences and monitors the young person's whereabouts. School provides clear rules and consequences. Neighbors take responsibility for monitoring young people's behavior. Parent(s) and other adults model positive, responsible
			behavior. Young person's best friends mode responsible behavior. Both parent(s) and teachers encourage the young person to do well.
	Constructive Use of Time	17. Creative activities 18. Youth programs 19.	Young person spends three or more hours

		Religious community 20. Time at home	per week in lessons or practice in music, theater, or other arts. Young person spends three or more hours per week in sports, clubs, or organizations at school and/or in the community. Young person spends one or mor
			e hours per week in activities in a religious institution. Young person is out with friends "with nothing special to do" two or fewer nights per week.
Asset Type	**Asset Name**	**Definition**	
Internal Assets	Commitment to Learning	1. Achievement motivation 2. School engagement 3. Homework 4. Bonding to school 5. Reading for pleasure	Young person is motivated to do well in school. Young person is actively engaged in learning. Young person reports doing at least one hour of homework every school day. Young person cares about her or his school. Young person reads for pleasure three or more hours per week.
	Positive Values	6. Caring 7. Equality and social justice 8. Integrity 9. Honesty 10. Responsibility 11. Restraint	Young person places high value on helping other people. Young person places high value on promoting equality and reducing hunger and poverty. Young person acts on convictions and stands up for her or his beliefs. Young person "tells the truth even when it is not easy." Young person accepts and takes personal responsibility. Young person believes it is important not to be sexually active or to use alcohol or other drugs.
		2. Planning and decision making 13. Interpersonal competence 14. Cultural competence 15. Resistance skills	Young person knows how to plan ahead and make choices. Young person has empathy, sensitivity, and friendship skills. Young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds peer pressure and dangerous situations.

		16. Peaceful conflict resolution	Young person seeks to resolve conflict nonviolently.
	Positive Identity	17. Personal power 18. Self-esteem 19. Sense of purpose 20. Positive view of personal future	Young person feels he or she has control over "things that happen to me." Young person reports having a high self-esteem. Young person reports that "my life has a purpose." Young person is optimistic about her or his personal future.

"External" assets are the relationships and opportunities provided to young people by adults and peers, and include the categories of Support, Empowerment, Boundaries and Expectations, and Constructive Use of Time. "Internal" assets are the values, self-perceptions, and skills young people develop to guide themselves, and include the categories of Commitment to Learning, Positive Values, Social Competencies, and Positive Identity.

Search Institute's studies collectively involving more than 1 million 6th-12th graders in the last 10 years (Benson, Scales, Leffert, & Roehlkepartain, 1999; Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998; Scales, Benson, Leffert, & Blyth, 2000), as well as the Institute's extensive synthesis of more than 800 empirical studies on adolescent development (Scales & Leffert, 1999), have yielded numerous positive conclusions about the contribution of developmental assets to student success. For example:

- Students with greater numbers of the 40 developmental assets not only achieve at higher levels in school, but also are less involved with alcohol or other drugs, and other threats to their health. Moreover, they are more likely to contribute to the community in the form of helping others or being leaders.

- The broader scientific literature suggests that many of the developmental assets may not just be associated with school success—they may actually help bring it about.

- There is growing evidence to suggest that experiencing higher levels of developmental assets is related to various indicators of academic success, as well as to conditions that make academic success more likely.

    - Students who report experiencing 31-40 of the 40 developmental assets are 2 _ times more likely (53% vs. 19%) to report getting mostly A's in school as students who have only an average level (11-20) of the assets

    - Those asset-rich students are 10 times less likely than asset-average students (2% vs. 19%) to have skipped school two or more days in the last month and/or have below a C average

- Several developmental assets (including school engagement, achievement motivation, time in youth programs, time at home, and personal power) together predict or explain from 19% to 31% of the variation in student-reported grades (over and above demographic variables) among six racial/ethnic groups of students. The clusters of developmental assets are especially good predictors for white, Asian American, and multi-racial youth.

  In a recent study, Leffert, Scales, Benson, & Vraa (2002) examined the relation of developmental assets to English, math, science, and social studies grades, core GPA, and class rank, as well as gender differences, in a sample of more than 1,000 mostly white, middle-class students in middle and high school. The results were consistent with the previous research: The more assets students have, the higher their grades, GPA, and class rank.

That study also suggested that developmental assets may have some effect on narrowing persistent gender differences: Girls with more assets have math grades closer to those of boys than do girls with fewer assets. Additionally, boys with more assets have GPAs closer to those of girls than do boys with fewer assets. Clusters of the assets also contribute meaningfully to explaining variation in students' grades, GPA, and class rank. Among those key predictor assets are achievement motivation, school engagement, time spent in school or community youth programs, time spent in the evening at home, time spent on homework, and the ability to resolve conflicts peacefully.

More generally, Search Institute's data (Benson, Scales, Leffert, & Roehlkepartain, 1999) show that one-third of students are not really engaged with schoolwork (other studies suggest even fewer are). In addition, only half have positive emotional connections to their schools. But engagement and emotional bonding to school are two features research consistently shows are important for student achievement (Berends, 1995; Connell, Spencer, & Aber, 1994).

Our previous studies suggest the importance of the relationship between school and community youth programs and school success, but 40% of young people don't participate even three hours a week in such opportunities. Despite the strong relationship between social competence and school success (as well as success in the work world), little more than 40% of adolescents have high levels of skills such as effective communication. Despite the critical importance of adult role models and guides to help nurture young people's paths to success, only 40% have several adults other than parents they can turn to and less than 30% have positive role models. And only 25% or fewer feel they are given chances to make a contribution in their schools and communities or feel valued by their community.

Purpose of the Study

Can school-community partnerships, specifically, school partnerships with businesses, make a positive impact on the problematic patterns related to effective communication, the presence of other caring adults in students' lives, and their making contributions to school and community and feeling valued, in part through their impact on students' developmental assets? For example, perhaps the promise of partnerships for student success could better be realized, and those investments more effectively used, if school-business partnerships more intentionally focused their efforts around building students' developmental assets than around training students' more narrowly for the transition from school to work. It is important to determine the unique potential businesspeople have to help elevate the quality of young people's developmental trajectories, and materially affect both their short and longer-term odds of success.

Can the results seen in mostly white, affluent, suburban samples of youth that relate levels of developmental assets to positive academic outcomes also be observed in samples of students who are not predominantly white, not mostly affluent, not largely suburban? If that were to be true there would be some greater confidence in concluding that the level of developmental assets makes a difference to diverse adolescents.

Greater understanding of how school-community partnerships, developmental assets, and school success may be connected could provide important direction for school-community partnerships in general, and a particularly fresh framework for re-thinking school-business partnerships. These questions are certainly worth investigating. Hypotheses associated with these questions need to begin to be explored through more targeted research. The present study, funded by the U.S. Department of Education, was an exploratory effort of Search Institute and Partners in Education in which we used a combination of qualitative and quantitative approaches to begin to fill in those knowledge gaps in the research.

Descriptions and advocacy around partnerships are plentiful, but data are much less common on what impact school-business partnerships have on students' school success. Most of the research is on school-to-work programs, and yet these represent just one kind of partnership, and perhaps not the most effective kind to help students achieve the multiple dimensions of success of interest to this research (Scales, Merenda, et al., 2000). More to the point of this discussion, studies have not specifically

addressed the degree to which the potential contribution school-business partnerships can make to increased student developmental strengths actually occurs, or why. In a comprehensive review of the research conducted in 2000, Search Institute and Partners in Education concluded that additional research is needed to document: 1) how developmental assets can contribute to school success, and 2) how school-business partnerships can contribute to students' experiencing more developmental assets and consequently have positive effects on school success (Scales, Merenda, et al., 2000).

Thus, the central hypotheses we investigated in the current study were:

- The relation of developmental assets to student academic and other outcomes would be similar for this low-income, urban sample as for more affluent, suburban samples previously studied. That is, the more assets students reported, the less risk-taking they would report and the more positive, thriving outcomes they would report.
- The more exposure students have to school-business partnership experiences, the fewer risk-taking behaviors and the more thriving behaviors they would report.
- The more exposure students have to partnership experiences, the more developmental assets they would report.
- The more partnership experiences and developmental assets students report, they greater would be their school success.

Together, examination of these hypotheses would provide preliminary evidence that partnership experiences may contribute to positive academic and other outcomes, in part through their relation to higher levels of developmental assets. In addition, the qualitative research employed would provide more rich descriptions and interpretations about how partnerships and assets might work to contribute to positive student outcomes.

METHODS

We selected a large high school in Houston, Texas, Davis High School, as the study site for several reasons: 1) location in an inner-city, urban area, 2) preponderance of students of color, and significant population of students living in low-income families, 3) evidence of long-standing school-business partnerships as reflected in materials provided by the Houston Independent School District. In addition, close relationships between HISD officials and staff and board members of National Partners in Education suggested that operationally the research could be successfully carried out in this site.

In January 2002, permission packets were mailed to the parents of all 1,700 students. The packets included answers to frequently asked questions, such as background on Search Institute, the purpose of the study, the general content of the surveys, how much time the surveys would take out of class, and a description of the procedures for maintaining student confidentiality. The materials were provided in both English and Spanish. In addition, parents had a week-long opportunity to review the surveys in the principal's office. The surveys—the 156-item *Search Institute Profiles of Student Life: Attitudes and Behavior* survey (A&B) and the 48-item *School-Business Partnership Experiences Survey* (SPES) are described in more detail below.

In late January, we administered both the A&B and SPES surveys to the 429 students who had been given parental permission to participate in the study. Students had the same identification number coded on each survey so that responses to the two surveys could be linked for analyses. The identification number was also used to collect student records on their most recent grades in core courses, GPA, and standardized test scores. In February, we conducted a week-long site visit in order to interview and conduct focus groups with a sample of students and staff who were participating in school-business partnership activities. In April, we again visited the high school to interview a second sample of students and staff and conduct additional focus groups.

Sample

Survey Participants

A total of 429 students received parental permission to participate and subsequently completed the surveys, for a student participation rate of 25%. A comparison of these students with the total student body on key demographics shows (Table 2) that the survey participants included a greater proportion of females, as well as somewhat more 12th graders and somewhat fewer 9th graders, than the total student population. Within the survey participant sample, boys were under-represented in the 9th grade and over-represented in the 12th grade, compared to their proportions in the total student population. In addition, there were higher proportions of students with reduced or free lunch eligibility, and Limited English Proficiency status in the survey sample than the total student body. However, proportions of students by race/ethnicity were similar in both the total student population and the survey sample.

Table 2 Demographic Composition of Survey Sample		
	Proportion of Students	
	Survey Participants	**Total in High School**
Gender: Female	56	49
Male	44	51
Grade: 9th	32	37
10th	26	26
11th	21	20
12th	22	18
Race/Ethnicity: African American	11	9
Hispanic	2	NA
Multiracial	2	2
White	85	88
Reduced/Free Lunch	81	72
Limited English Proficiency	24	18

This was a relatively stable student sample: 90% of the students had lived in their current community for at least 5 years. As expected for this inner-city high school, the reported education level of their mothers and fathers was not high, with 59% of fathers and 64% of mothers reported to have only completed high school. As is also common across diverse student samples, large proportions of students simply did not know what their mothers' or father's highest education level was (26% did not know for fathers, and 19% did not know for mothers).

Interview Participants

In February and April 2002, a team of qualitative researchers from the Harvard University Graduate School of Education visited the high school for one week of data collection. This team consisted of the Principal Investigator (PI), who is a research associate in the department of Human Development and Psychology, and two graduate students from the same department.

Seventy-six individuals, including 30 students, 6 teachers, 6 school administrators, 22 partnership representatives, and 12 parents/grandparents participated in individual interviews or focus groups across our two visits.

Students. A broad cross-section of students in terms of gender, grade, ethnicity, academic achievement, school involvement, and partnership involvement were recruited for interviews by the vice-principal, business partnership coordinator, and teachers, at the request of the researchers. A demographic breakdown of the student sample is presented in Table 3.

Table 3 Demographic Distribution of Student Interviews (N=30)				
	# Students	**Grade**	**Gender**	**Ethnicity**
Time 1	14	6 seniors 5 sophomores 3 freshmen	8 males 6 females	10 Hispanic 3 African-American 1 White
Time 2	16	7 seniors 5 juniors 1 sophomore 3 freshmen	8 males 8 females	11 Hispanic 4 African-American 1 White

Teachers. Teachers (five men and one woman) were selected for interviews based on their prominence in the students' interview responses and/or their association with partnerships. Four of these teachers instruct classes in Science, Math, or U.S. History, and two are affiliated with the Magnet and CISCO programs. These teachers also permitted class observations.

Mentors. Ten mentors (three men and seven women) from the school's primary corporate sponsor participated in a focus group. Two mentors also provided individual interviews.

Administrators. Six current and former administrators at the high school also were interviewed. These include the current principal, the Magnet program coordinator, the business partnership/scholarship coordinator, an assistant principal, a student manager (responsible for tracking students' academic progress), the former substance abuse counselor, and the former principal, who was largely responsible for the establishment of partnerships at the high school.

Partnerships representatives. Interviews were conducted with 22 partnership representatives, 12 of whom serve as mentors. The remaining 10 provide administrative program support or direct services for students. One of these interviews was with the founder of the original and largest business partnership at the high school.

Parents. Eleven parents and one grandparent of current and former Davis High students participated in focus groups. The leadership of the Parent-Teacher Organization recruited participants.

Measures

Quantitative Measures

We administered the two surveys back-to-back during the school day. The *Search-Institute Profiles of Student Life: Attitudes and Behaviors* survey (A&B) has been used with more than 1 million 6th-12th grade students in more than 1,000 U.S. communities, and the resulting data have informed numerous books, scholarly articles, and other resources used by educators, youth development workers, policymakers, and community leaders across the country. The 156-item survey measures students' reports of 40 developmental assets, 10 risk-taking behavior patterns, 9 thriving indicators, and 5 developmental deficits, as well as typical demographic information such as age, gender, race/ethnicity, and mother's and father's education levels. Many of the assets are measured with one item. Among the assets measured with multiple items, two-thirds have generally acceptable alpha (internal consistency) reliabilities ranging from the .60s to the .80s. The 48-item *Search Institute-Partners in Education School-Business Partnership Experiences Survey* (SPES) is a new instrument that was first pilot-tested in fall 2000 among 230 9th grade students at a high school in suburban Minneapolis. It measures the types of partnership experiences students have had, features of those experiences, students' perceived academic and personal growth impact resulting from those experiences, and students' report of overall career preparation activities in which they have engaged. The five scales comprising the measure all had adequate to excellent reliabilities (ranging from the .70s to .90s) in the mostly white, middle-class, suburban pilot sample.

Qualitative Measures

Qualitative data collection was a rich combination of observations, archival research, individual interviews, and focus groups. Most interviews and focus groups were 60 to 90 minutes in length. Researchers followed a semi-structured interview protocol specific to the data source (i.e., student, teacher, administrator, partnership representative, or parent), allowing the researcher to collect the necessary data as well as explore other topics offered by the interviewee. The protocols are described below.

Observations. Researchers observed classes, school-wide events, extracurricular events, and several partnership meetings. The attending researcher wrote observational field notes.

Archival research. Researchers gathered paper documents, on-line information, and published materials prior to the first visit and throughout the project to provide a beginning understanding of the available partnerships as well as a contextual framework regarding the high school and surrounding community.

Interviews. All interviews with students, teachers, and administrators were conducted at the high school, during the school day. Partnership interviews either took place at the high school or at the off-site partnership office.

- The **student interview protocol** assessed the student's breadth, depth, and frequency of partnership involvement, how they became involved, and how their partnership has involvement affected their academic and career trajectories. To provide a necessary contextual framework, students were also asked about family demographics, school mobility, post high school graduation plans, employment experience, parent involvement in school, alignment between student and parent plans, school involvement, important adults in their lives, and challenges to academic progress.

- The **teacher interview protocol** asked teachers for their perspectives on the depth and reach of partnership activities, including access to these activities as well as the range of activities offered. Questions also addressed teachers' academic and professional background, pedagogical beliefs, their responsibilities at the school, the impact of new administrative leadership, and the difficulties students' face in pursuing higher education.

- The **school administrator interview protocol** followed the same semi-structured interview protocol as for the teachers, but contained additional questions pertaining to the evolution of the school as an academic institution as well as the history of partnership involvement. Also, depending on the administrator's position, unique questions were drafted.

- The **partnership interview protocol** presented a series of questions regarding the program's range of services, underlying goals, indicators of success, history at the high school, staffing, the types of students who use their services, and how students are recruited to participate in the program. We also inquired about the challenges the programmer's face in their work, as well as future directions for the program.

Focus groups. The three parent focus groups were held at the high school in the evening hours to accommodate for parents' work schedules. In two of the three focus groups, participating parents translated for Spanish-only speaking parents. A business mentor focus group took place at the mentors' place of employment.

- The **parent focus group protocol** was targeted at understanding parents' perspectives on the partnerships' role in facilitating students' higher education, the range of available partnership activities, the importance of business partnerships within the school and community, and the effects on their own children. Parents were also asked to comment on their children's plans to attend college, possibly outside Houston, and what specifically has helped and/or hindered their children's academic progress. In addition, researchers inquired as to the parents' educational and professional backgrounds and their connection to the high school.

- The **mentor focus group protocol** focused on how mentors are recruited, mentors' educational backgrounds and employment experiences, and their training and ongoing supervision within the mentoring program. Mentors were also asked to comment on facets of the program that work well and those that could be improved. Finally, mentors were asked to describe their role as mentors as well as what conditions presented challenges to their students' "success."

Analytic Methods

An outside contractor transcribed field notes from the interviews. Following transcription, the interviews were read, annotated with codes, and discussed with the entire team. The analysis team consisted of the three researchers who went to the field, plus an additional graduate research assistant who provided a keen outside perspective.

The analysts primarily followed a grounded theory approach, which involves generating "open codes" that describe and interpret salient issues in the interviews (Strauss & Corbin, 1998). They also read and interpreted the interviews specifically in response to the research questions, thus also employing a theory-based approach.

In reviewing each interview, its memo, and discussing the interviewer's and analyst's interpretations during weekly team meetings, the team members made within-case and cross-case interpretations. Codes for salient themes were derived from the data based on prominence within interviews, frequency across interviews, and key outliers, and were supported with examples from the texts. Relationships between codes were charted with schematic models. These charts were also used to determine connections between partnership activities.

Reliability. All codes were decided upon by consensus coding after extensive discussion during which time all four members of the research team came to agreement on the definition and relevance of each code.

Validity. The validity of our qualitative findings and analyses is based on “triangulation” of the data (Maxwell, 1996; Miles & Huberman, 1994). That is, members of our research team purposefully collected data from a range of data sources, using a variety of methods, and at two different points in time in order to capture as reflective and comprehensive picture as possible. More specifically, we employed different modalities of research – observation, interviews, and focus group – to collect data. We also interviewed an array of respondents, including students, teachers, school administrators, and partnership representatives. Furthermore, we interviewed a broad cross-section of students in terms of gender, grade, ethnicity, academic achievement, and partnership involvement.

Historical and Contextual Background of the Partnership Studied

A study of school business partnerships at Davis High School is a study of an unusual business partnership--one that spawned a model program called Project GRAD ("Graduation Really Achieves Dreams") that is now used in several cities nationally. It is also the study of community change in the "Northside" of Houston; a neighborhood largely made up of Mexican- American first and second generation immigrants, many of whom retain close ties to their home country. And, it is the study of a partnership of two visionary leaders--a high school principal and a former CEO. We learned from our interviews with students, parents, teachers, mentors, program administrators, and business people that a study of this partnership must include some historical perspective on the collaborative ways in which the neighborhood, the business partners, and the school have brought about significant changes in the opportunities, support, and fostering of conditions conducive to positive youth development and achievement.

Based on this study, it is clear that successful school-business partnerships do not stand alone; rather, they are deeply embedded within the school culture, as well as in the broader community. In essence, as vignettes from our interviews and focus groups later illustrate, these partnerships have become a critical component of students’ schooling experience; an element which is also depended on by teachers and administrators, and expected by parents and community members.

Why Study GRAD at Davis?

Although it is atypical as a school-business partnership, the study of Project GRAD at Davis High School has several unique features, which make an important contribution to a study of school business partnerships. The longevity of the partnership, which spans some 15 years, allows us to study the evolution of the program. For example, it became apparent that the incentive of a college scholarship alone was not sufficient to decrease the high school drop out rate and support students in considering higher education. There were many other challenges that needed to be addressed, which we will describe in later sections of this report.

Another unique feature of this particular partnership is that the majority of students at Davis High School are Hispanic, and the children of first and second-generation immigrants from Mexico. Many students live in the neighborhood surrounding the high school, which is striking for conveying the sense of a small Mexican town, or barrio. Local restaurants are Mexican, and business signage and advertising are written in Spanish. Streets are lined with small, one-story wooden bungalows. On the weekends, flea markets, a source of family income, are common throughout the neighborhood. The "Northside" is a striking contrast to the downtown high-rise offices of Project GRAD, and illustrates the complexity for students of straddling two cultures, along with the attendant barriers of language, citizenship, and low income or poverty. A study of this partnership sheds light on the particular role of a strong school business partnership on a minority population that has not been studied so exclusively.

A third contribution made by Project GRAD to the study of school-business partnerships is in the area of sustaining success, furthering its reach to more students, and supporting a relatively new social norm. The longevity of GRAD provides a "window" into how a successful school-business partnership program "thinks" about sustainability and continuity, both financially, as well as motivationally over time. How is the leadership protected from "burnout" and the movement kept "fresh" and attentive to changing community conditions? We learned, for example, that several parents have remained active at Davis High long after

their own children have graduated. We also learned from teachers and administrators about the frustration attending frequent testing and the pressure for a high profile high school to show improvement. GRAD today is very different from the way it was originally envisioned, and it continues to change.

Another important contribution the study of Project GRAD can make to the study of school-business partnerships is focusing more attention on the ways in which partnership activities and experiences are extended to students. As child developmentalists and applied researchers, we are particularly interested in the partnership experiences that youth can internalize -those that will engage them and can be scaffolded in such a way as to promote the students' developing sense of efficacy. One criticism of the GRAD/Davis partnership is that students may successfully gain admission to college, but lack the coping skills to remain there when the partnership activities are no longer available. School business partnership activities at Davis High provide a wide array of assistance to students. "Help" can take the form of filling out financial aid forms or providing the financial support for a field trip to a college campus. "Help" can be meeting with a student as a mentor. Although most school-business partnerships may not share the depth and breadth of involvement of GRAD with Davis High, this particular study raises important questions as to what forms "help" takes in any school-business partnership. Further, this study suggests that research attention could be focused on which kinds of help might be the most efficacious in terms of fostering skill building that would allow students to succeed in higher education.

History and Contextual Landscape

A study of school-business partnerships at Davis High begins with a brief description of the social landscape and focuses attention on another, more subtle level of school-business partnership --the powerful relationship that developed between two key leaders.

In 1988, Emily Cole became the principal of Davis High School. In her new position, she faced skepticism that her years of experience in elementary schools had prepared her for assuming a leadership role at a high school--let alone the particular challenges of this high school and community. At that time, the Northside was described as rife with drug activity, and Davis High in particular, had an extremely high drop out rate. One administrator told us that Davis had become the "dumping ground" for gang involved youth.

> School would be out, and that street would be closed, because of the gang fights and the traffic stoppage….And then we'd go out there in groups and break 'em up…Shotguns walking down the hall under overcoats? That was here….
> …teachers hiding, and staying in rooms, and locking their doors, and kids going in the halls and doing as they want, … (Interview, School Administrator)

Largely an area of first and second-generation Mexican immigrants, there were barriers of isolation, language, and socioeconomic status separating parents from connection to their children's school. Extended compulsory education was often not a part of their own experience. We learned in our parent focus groups that many parents had not completed middle school, before leaving school to help support their family. Further, we learned from students who regularly travel between Mexico and the U.S., that the hallmarks of adulthood --independence and earning power--are reached earlier in Mexico, where it is not unusual for teens to be working full time in farming and ranching.

Over the years, Project GRAD has learned that in order to support students' higher academic achievement the partnership must bridge cultural differences through parent education. The yearly *Walk for Success* and the establishing of a *Parent University* are now components of the partnership with Davis High School. Each year, Project GRAD staff, Davis High staff, students, parents, community leaders, and mentors walk the Northside to visit the homes of each incoming freshman in order to expose families to higher education opportunities for their children, and adult education opportunities and support for themselves. GRAD has addressed the need for students to contribute to their family income by providing stipends while they are attending Summer Institutes, job training, and internships. Financial remuneration is a significant and controversial feature of many of the partnership activities, but nonetheless

acknowledged as making it possible for students to continue their studies in high school and higher education.

For children of first and even, second generation immigrants, pursuing higher education means venturing into unfamiliar contexts of distance, independence, competition, and higher standards for academic success than they have experienced living in the Northside, or in Houston. We learned from students and parents that what we, as Anglo researchers, perceived to be relatively short distances in terms of mileage, seemed experienced as "worlds apart" for students and their families who had never left their neighborhood. So striking was this difference in perception, that we added an interview question to our protocol asking students where they had grown up and how much they had traveled, in order to learn the extent of insularity experienced by our sample. Simple exposure to college campuses and to businesses and careers through field trips --to the unfamiliar--appears to be a critical contribution that school business partnerships can make for students who might not have the same access to these experiences as Anglo, or even African American students.

> …the Anglos, I mean, they graduate and it's the norm…But when you've got parents that are not or either, maybe the level of education isn't there or whatever and we have a lot of immigrants and all that, and there's no way you can tell an immigrant, somebody's who's from Mexico that has been here maybe five years or ten years and then bringing up their children and all of a sudden they do graduate and they're going to go away to Cornell, no! (Parent, Parent Focus Group)

As a school business partnership, there was another "culture" that needed to be negotiated if GRAD was going to make a change in the academic achievement of Davis students--the social and economic context of the school itself. The history of GRAD at Davis is a fascinating study because of the "cultural exchange" that has occurred between two very different community sectors: business and public school education. Our interviews with former principal, Emily Cole and the founder of Project GRAD and former CEO, James Ketelson suggest that as a principal, Cole was essentially "mentored" by Tenneco (which became El Paso Energy) in the ways of the private sector.

Mentorship of a Principal and Engagement of a CEO

Cole and Ketelson are both innovative thinkers who were extremely adept at recruiting outside expertise. Cole strengthened her connection to the community through hiring a charismatic community activist to address the gang and substance abuse issues plaguing Davis. Ketelson located nationally recognized curriculums in reading, math, and classroom management and made them a requirement of Project GRAD. Cole's relationship with the Director of Community Affairs at Tenneco made her aware of foundation resources for her school, as well as connecting her to the local business community through social events.

> …So, I was here one month, and I got invited to go to Tenneco for lunch. And I went, and they had an executive dining room. I didn't know that. I didn't know anything about companies. .And I go there, and a table of VP's. And they want to know about me. …'So what are you going to do about Davis?'

She learned to prepare reports, as well as to propose specific project descriptions to address the areas where she needed financial support.

> …now if in our conversation…if I noticed that they had an interest in something--let's say it was baseball. Let's say it was cheerleader, -if they said something to me that I could tie to the school, I would tell them I had an interest in talking to them about a particular program at the high school. And so I learned to put a proposal together … And the budget had the total numbers, but I would break it up into three or four sections. So if they didn't have $5000 to give me, they could see a section--a line. . So they would say, 'Oh, I can fund that,'….

Cole recognized that it was not enough to reclaim the school from the gangs and the attendant drug commerce. If alternative activities for students were not established, the gangs would return.

> …Everybody, the bell would ring, they [teachers] would all run to their cars. And so finally...I went to a couple of teachers, 'I can't believe teachers leave so quickly. I mean, don't they like their job?' In elementary the teachers always stay around until the last kid. And one teacher said, 'I have another job. You know they don't pay us enough. …' And I thought, 'You're right. Your time is valuable, and if I'm gonna keep ya, I want to pay you.' That was another one of my grants. I started paying teachers for any time they gave me, and I did not take advantage of them any more. . (Interview)

Ketelson related his manufacturing and production experience to the development of the school feeder system of Project GRAD, in which designated elementary and middle schools "feed into" Davis High School.

> …working in a feeder system was basic to what we were gonna do. And that was--you know, that's a businessman's approach to education, I guess because they--you know, educators don't do it that way.
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> I use this analogy--I don't use it very often with people in education... One of my previous jobs, I was president of a corporation. . And at the end of this…line [assembly], we found something wrong and they had to repair it, and the "hospital" [where machines were sent for repair]…. We finally sat down and said, 'This is crazy, and we're gonna start going back to the source of the problem and stop the assembly line. . When we find something wrong, we're gonna stop the assembly line, and go back wherever in the assembly line that fault was, in effect, put in, and correct it there, and then we'll start up again.' And that eliminated the [tractor] hospital.
>
> And then when you look at the school system, and they obviously--it's not an assembly line, but ...you have to have the capacity to go back down and see what it is that is…
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> —
>
> You've got to go back and fix it in the beginning, so they aren't there in the first place. (Interview, Project GRAD Founder)

Cole gradually became more entrepreneurial in running her school. She increased her visibility in the Houston business community, and she creatively garnered financial resources. She also focused extraordinary care on her teaching and administrative staff. She had been a classroom teacher, herself, for many years, and then an elementary school principal prior to her tenure at Davis. Ketelson was applying entrepreneurship expertise to a new realm--public education, and in the process came out of retirement to found and direct Project GRAD for the past ten years.

RESULTS

Student Reports of Level of Assets

Table 4 displays the proportion of students saying on the surveys that they experience each of the 40 developmental assets. It shows that students in this urban high school self-reported a slightly lower average number of the 40 developmental assets (18.1) than students reported (19.3) in Search Institute's 1999-2000 school year aggregate sample of more than 200,000 students from more than 300 U.S. communities.

Table 4 Proportion of Students Reporting Each of 40 Developmental Assets		
	Percent of Students Reporting	
	Houston	**Aggregate Sample**
Asset		
Support		
Family support	62	70
Positive family communication	27	30
Other adult relationships	26	45
Caring neighborhood	33	40
Caring school climate	26	29
Parent involvement in schooling	18	34
Empowerment		
Community values youth	23	25
Youth as resources	26	28
Service to others	45	51
Safety	44	51
Boundaries and Expectations		
Family boundaries	34	48
School boundaries	54	53
Neighborhood boundaries	47	49
Adult role models	19	30
Positive peer influence	53	65
High expectations	53	49
Constructive Use of Time		
Creative activities	19	20
Youth programs	44	58
Religious community	49	63
Time at home	58	52

Commitment to Learning		
Achievement motivation	65	67
School engagement	63	61
Homework	52	53
Bonding to school	55	54
Reading for pleasure	17	23
Positive Values		
Caring	65	50
Equality and social justice	69	52
Integrity	78	68
Honesty	70	67
Responsibility	74	63
Restraint	31	47
Social Competencies		
Planning and decision making	35	30
Interpersonal competence	42	47
Cultural competence	44	42
Resistance skills	32	42
Peaceful conflict resolution	30	45
Positive Identity		
Personal power	37	44
Self-esteem	52	52
Sense of purpose	54	59
Positive view of personal future	75	74

How are Students' Developmental Assets Related to Risk Behavior Patterns and Thriving Outcomes?

A key question related to this exploratory study is whether the patterns found in previous research with samples over-representing white and suburban students would be found in the current sample of inner city youth of color. Despite the somewhat lower average level of developmental assets among these students than among Search Institute's large aggregate sample, the relationship of assets to reported risk behavior patterns and thriving outcomes appears similar.

In the following table, we present the proportion of students who say they engage in high-risk behavior patterns, or instead, enjoy thriving behaviors, based on the level of 40 assets they report experiencing. In our previous research (e.g., Benson, et al., 1999), use of quartile levels to divide students on the basis of how many of the 40 assets they experience has been strongly and consistently related to these risk and thriving outcomes. The higher the level of assets students report, the fewer risk patterns they report and the more thriving indicators they report.

Table 5 shows that these same trends characterize the current Davis high sample. The higher the asset level, the less students report engaging in high-risk patterns of behavior such as drug use or sexual

intercourse, and the more they report thriving behavior, such as school success, helping others, and exhibiting leadership. For example, only 22% of students with 21-30 of the 40 assets say they have problem alcohol use, compared with 30% who say so if they have only 11-20 assets, and 55% of the students with 0-10 assets. Note that we do not provide proportions for the 31-40 assets level, as only 15 of the sampled students were at this level, introducing a large error into observations using those data, and potentially compromising student confidentiality.

Table 5 Proportion of Students Reporting Risk Patterns and Thriving Indicators, By Level of Assets			
RISK PATTERNS	21-30 assets	11-20 assets	0-10 assets
Alcohol use (F(3.382)=10.37, p .0001) (1 > all)	22	30	55
Anti-social behavior (F(3.384)=7.48, p .0001) (1 > 3.4)	15	24	38
Depression/Suicide (F(3.384)=5.94, p .0006) (1 > 3.4; 2 > 3.4)	23	36	38
Illicit drugs (F(3.384)=12.95, p .0001) (1 > all; 2>3)	--*	20	47
Gambling (F(3.384)=4.03, p .007) (1 > 3,4)	14	19	32
School problems (F(3.384)=20.73, p .0001) (1 > all; 2> 3.4)	6	16	42
Tobacco (F(3.384)=2.65, p .04) (no sig contrasts)	5	8	15
Violence (F(3.384)=6.73, p .0002) (1 > all)	30	37	48
Driving & alcohol (F(3.383)=10.65, p .0001) (1 > all; 2 > 3)	17	31	51
Sexual intercourse (F(3.376)=4.26, p .005) (1 >3)	29	37	51
THRIVING INDICATORS			
Resisting danger	36	21	17

(F(3.384)=4.18, p .006) (3 >2.1)			
Valuing diversity (F(3.384)=15.57, p .0001) (1 < 2.3,4; 2 <3.4)	90	77	53
Maintaining health (F(3.384)=19.85, p .0001) (1<2,3,4; 2<3,4)	61	43	11
Exhibiting leadership (F(3.384)=9.71, p .0001) (1 <3,4;2< 3,4)	80	66	49
Delay gratification (F(3.383)=10.66, p .0001) (1 < 2,3,4; 2 < 4)	55	46	25
Helping others (informal) (F(3.379)=7.84, p .0001) (1 < 3,4;2 <3)	93	79	54
Overcoming adversity (F(3.383)=4.45, p .004) (1 <3)	76	62	53
School success (F(3.382)=13.96, p .0001) (1 < 2,3,4; 2 < 3,4)	19	12	--*

*= 5 or fewer in cell—proportion not reportable

Table 6 below displays another perspective on these data. It shows that for each quartile increase in the number of assets these students reported, they reported a lower average number of high-risk patterns, and a higher average number of thriving behaviors. Results for the aggregate sample show that these improvement trends continue when comparing students who have 21-30 assets with those who have 31-40. Again, the small number of students reporting 31-40 assets in the Houston sample preclude including those proportions. Nevertheless, there was a high level of similarity between the current sample and the aggregate sample in the other patterns of developmental improvement when students move from lower to higher quartiles of asset levels. The similarity in results for three of the four quartiles suggests that if the numbers of students in this study at the highest asset level quartile had been adequate to report, then continued improvement consistent with these proportions, similar to that seen in the aggregate sample, might have also been observed here. Empirical confirmation of this speculation in a future study would be extremely beneficial.

Because the purpose of this study was to examine how developmental assets and partnerships are related, we needed first to determine whether student reports of assets show similar associations to developmental outcomes in the low-income, urban Davis High sample as has been found in more affluent, more suburban samples. With comparable patterns of relationships between assets and outcomes across the different samples, we could then examine more closely how partnerships might be contributing to building students' developmental assets and positively influencing academic and other outcomes.

Table 6 compares these data to trends found in Search Institute's large data set. It shows that the proportional improvement in protection from risk in the current sample, although somewhat less than the pattern seen in the large data set, is still substantial, at about 33% improvement in risk reduction for each quartile increase in assets. The improvement in promotion of thriving is even more substantial: Moving from below average to just average levels of assets results in a 52% improvement in the number of thriving behaviors reported by these urban high school students.

These results suggest a clear association of developmental assets with lessened risk and increased thriving in both samples, despite significant differences in the composition of the samples. The Search Institute aggregate sample is predominantly white and over-represents suburban and small-town students from families where parents have relatively high levels of education. It also includes middle-school students, who typically display higher levels of assets and lower levels of risk behavior patterns. The current sample is older high school students, almost entirely Hispanic and African American, attending an urban inner-city school. The majority of the students in the current sample live in relatively lower-income families in which their parents' education level is far lower than the aggregate sample averages.

Table 6
Percent Improvement in Number of Risk Patterns or Thriving Indicators Reported

Houston Sample SI Aggregate Sample

Risk Patterns:	Number of Risk Patterns/Thriving Indicators	Percent Change in Risk/ Thriving		Number of Risk Patterns/Thriving Indicators	Percent Change in Risk/ Thriving
Moving from 0-10 assets to 11-20 assets Moving from 11-20 assets to 21-30 assets	5. 6.3 6.3 4.2	34% fewer risks 33% fewer risks		9.3 5.5 5.5 2.7	41% fewer risks 51% fewer risks
Thriving Behaviors: Moving from 0-10 assets to 11-20 assets Moving from 11-20 assets to 21-30 assets	2.7 4.1 4.1 5.1	52% more thriving 24% more thriving		2.8 3.9 3.9 5.0	39% more thriving 28% more thriving

Nature of Partnerships at Davis High School

These results offer partial evidence that young people's developmental assets profiles may have robust associations with positive outcomes *across* racial/ethnic, residential, and socioeconomic diversities. Thus, the approach of intentionally building young people's developmental assets may have significant practical utility for positively shaping the developmental pathways of diverse young people in diverse settings. Given this finding, we now turn to what the qualitative research revealed about the nature of the partnerships at Davis High, and how they might be influencing students' experience of developmental assets.

In Table 7 (attached in Appendix), we present a summary chart of the high school's major partnerships and the partnership's components/activities, goals, and underlying beliefs. Table 7 represents our synthesis of information provided by interviews with program representatives and print material describing the various partnership efforts.

It is important to note that this is not an exhaustive list of partnerships established at the high school. Rather this table focuses on the partnerships that appear to have the greatest influence on the high school and its students, as noted by students, teachers, administrators, and program representatives. This table provides insight into the range of direct and indirect services offered to students, the broad scope of programmatic goals, and the social, economic, and cultural belief systems that underlie these partnerships.

Partnership Features that May Contribute the Most to Positive Developmental Outcomes

In Table 8 (attached in Appendix), we extend this presentation by presenting the elements of school-business partnerships that seem to contribute most specifically to the potential acquisition or promotion of developmental assets. We use the Search Institute model of developmental assets to suggest how school-business partnerships can influence the healthy development of youth.

In the column labeled "High Impact," we note with three asterisks (***) those assets that were best supported by multiple, *potent* business partnership activities. By "potent" or "high impact" we mean those partnership activities that students, administrators, parents, and/or program representatives identified in individual interviews and focus groups as having the greatest influence on student life at Davis High School. In the judgement of the interviewed students, administrators, and parents then, these partnership activities carry the potential to promote developmental assets. Other assets not given three asterisks may be highly influential in certain students' lives, but either only a limited number of partnership activities seemed to support this asset or only a small proportion of students appeared to take part in those partnership activities.

In this table we focus upon the high school's major partnerships: Project GRAD (including Communities in Schools, El Paso Energy Corporation College Scholarships, Business Mentoring, Parent University, Gear Up, Summer Institutes), the Magnet Program, the Pregnancy Education and Parenting program, Cisco Networking Academy, HoustonWorks, Texas Scholars, Close Up, YMCA civic education programs, and the Houston Museum of Cultural Arts. These not only are the partnerships that are most frequently referenced by students, teachers, administrators, and program representatives, but also represent a broad cross-section of partnership involvement at Davis High School in terms of program scope, target population, and objectives, according to school administrators.

As can be evidenced by this table, school-business partnerships have the potential to contribute to a range of developmental assets. Based on extensive interview and observational data, we found that school-business partnerships can play an instrumental role in the development of specific external assets including family support, other adult relationships, caring school climate, community values youth, youth as resources, adult role models, and high expectations. We also suggest that school-business partnerships appear to influence a number of students' internal developmental assets, such as achievement motivation, responsibility, planning and decision making, personal power, and positive view of future. To illustrate the quality of "high impact" or "potent" activities, we present evidence as to how several developmental assets are highly supported by partnership activities at Davis High School. To contrast this point, we also discuss how some partnership activities at Davis High School did not appear to support certain developmental assets as effectively.

Family Support

Throughout parent focus groups and program representative interviews, we were repeatedly told that in order to influence change in students' educational aspirations and attainment, students' parents must also be targeted. In this vein, several partnerships have recently introduced or are in the process of enhancing parent components in their programs in order to educate parents regarding the American educational system, the college application process and experience, and the long-term value of high school graduation and higher education. The majority of parents at Davis High School have not attended college, and so they are unfamiliar with the college-bound process. To address this and other needs,

Project GRAD and Communities in Schools (CIS) created the "Parent University" program. The coordinator of this program told us,

> A large percentage of these parents will tell you, 'I don't know what to do, and I don't know how to do it. Nobody has ever told me. Nobody has ever helped me.' So we try to get people to work them, you know, like scholarship people, financial aid people… the counselors to come in and talk to them and explain to them.

She also described a new program that she is bringing to Parent University, available in both Spanish and English, in which parents will have the opportunity to spend a day at college and learn about college life so that they can better understand what their children will experience. According to the coordinator, parents are requesting this program and other services so that they can better support their children's academic lives. According to the CIS project director they are also arranging parent meetings in which other Hispanic parents who have sent children to college can talk about their experiences and the opportunities made available by this decision.

Once parents are convinced of the importance of finishing high school and possibly pursuing higher education, they can press this idea upon their children. One mother in a parent focus group described how she has tried to influence her children,

> I just try to explain to them that, you know, they see nice cars and they see nice homes, and 'You can have that. You can have that. You won't have to struggle because you've got an education.' And, you know, I keep knocking that into their heads, you know? It all comes back to the parents. You have got to be there from day one and show them, teach them, tell them, and so that they know nothing different. That that's just the way it is. That's the norm. You know? And I know that parents still struggle with that…

It is also important to note that older siblings are a prominent source of support for students at Davis High School. In one interview, a senior told us that his older sister attended the Magnet program at Davis High School and enjoyed it, and that is why in the 7th grade this student decided to bring up his grades so he could also attend the Magnet program at Davis. In turn, this young man said that he sees it as his responsibility to guide his younger brother down the right track as well. Likewise, a 9th grade student described how she turns to her older sister, a Davis alumna, who is in college and a recipient of the Tenneco (now El Paso) scholarship, for academic support and guidance: "I look up to her. She always telling me like, 'So, you know, go to college and graduate college.'…She won't like put me down and say I can't do it…"

Parents also recognized that the partnerships are instrumental in helping families financially support their children's education. In one parent focus group, a mother of three Davis graduates said, "I have to tell you…if it weren't for that El Paso [scholarship]. I mean, I have three kids in college… It would be really difficult for my husband and I [to] send all three of them to school." Parents in another focus group noted that even sending just one child to college is a financial hardship, and that the guarantee of the El Paso Scholarship, the oldest component of Project GRAD, is still one of the most critical features of helping parents support their children's educational development.

Other Adult Relationships

Outside of family members, students also rely on other adult relationships to help them navigate the high school and college application process. One potentially powerful source of adult relationships is the mentoring program at Davis High School, which pairs small groups of students with mentors, primarily from their corporate-scholarship sponsor El Paso Energy, to meet bimonthly. For one senior, his four-year relationship with his mentor has been instrumental in his educational experience. The following excerpts from this student's interview provide poignant insight into the significant influence a partnership mentor can provide in a young person's life:

> These last couple of years he has been helping me with scholarships and the application, and you know, because he's taking a class right now at U of H [University of Houston] so that he can get another degree in something…he brought like papers and stuff, showing the prices…and what kind of classes you can take there… like examples and stuff… He's helped me out a lot.
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> We talk about goals, like we set goals like what we want to do, and our main goal is get in all the classes that we need to be to graduate and for me as a Texas Scholar. And he's brought papers letting us know of the classes that we need to be a Texas Scholar… and he's talked about talking to our managers about the classes we need…instead of the classes that they want to put us in.
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> Sometime we'll talk about things that are going on, like in the city and events… We talked about sports, and he's not there just to talk about school… When you have problems you can talk to him about it. And if he can help us, you know, right there at that point he will. If not, he'll help us maybe find help, like if we're having problems in math or something, he'll help us find somebody that can help us there…
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> He's just like our backbone, really. Like he puts us together, you know? He there's for us when we need him. And we have his number in case something happens outside and we need to talk to him or something… They had given me a math class that I didn't need… and I didn't need that. I needed a geometry class and then I was supposed to take Algebra II, and I was running out of time… And so my junior year… I had to take two math classes. And that's why I called him, because I wasn't sure if they count it or what I needed to take. And he kind of helped me out and… he told me I needed to change it to make sure that I took the right class. …He got me headed in the right direction.

In an interview, another senior told us about the role her mentor played in making her final decision regarding where she would attend college. The student was feeling torn between a local university and one in Michigan, both of which were prestigious and offering her significant financial aid, but would have provided her very different college experiences. On the final day for notification, the student met with her mentor at the regular lunchtime meeting. Together they completed and discussed of the pros and cons for each school that the student had started earlier in the day. However, it was not until the student went to the post office by herself at 4:45 p.m. that she made her final decision – Michigan. The interaction between mentee and mentor is a telling example of how adults in partnership activities can scaffold youth development by providing them with support so that over time young people themselves can internalize these working models of how to set and meet educational and other goals.

Another potential source for supportive adult relationships is Communities in Schools (CIS). For example, one 9th grade student described how she turned to CIS for counseling services at the beginning of the second semester:

> I broke down, and I don't know what happened. I had to go to CIS. I cried, and they talked to me and so many things. Because I couldn't be in class. I was just so depressed, I don't know. I just needed to know who my dad was, and I never could.

Since then, she has returned to CIS whenever she is feeling overwhelmed.

> Sometimes I can talk to my mom about anything and sometimes I can't. Because I know how my mom feels about certain things and I just keep it to myself. And any time I'm about to explode and I can't keep it to myself… I'll come to CIS or I'll tell like a real good friend I trust.

High-achieving students at Davis High School are eligible to apply for prestigious summer programs at Rice, Cornell, and Northwestern, as well as the standard Project GRAD Summer Institute at the University of Houston. While attending these programs, students have the opportunity not only to pilot test the college experience away from home, but also to build relationships with adults. One student who attended the Cornell Summer program took a small English seminar of eight students and was able to

develop a close relationship with her professor. In an interview she told us, “I had conferences with him, and I invited him to lunch with my other friends… He’s like, ‘If you ever need a recommendation letter, you can email me.’”

Our interviews with students reveal that a number and variety of business partnerships provide students with the opportunity for supportive adult relationships. Based on these interviews, it is also clear that relationships can be highly influential in students’ educational progress.

High Expectations

The infusion and assimilation of Project GRAD within Davis High School has set high expectations for all students. According to the Search Institute asset model, high expectations are an external asset under which, “Both parent(s) and teachers encourage the young person to do well.” Under Project GRAD and to a great extent within Davis, to “do well” means the pursuit of higher education.

Serving 1700 youth, this high school annually sent only about 10 students to college 10 to 15 years ago. For most students at that point, higher education seems to have been a lofty and probably unachievable goal. Nonetheless, the expectation for college-going was set with the introduction of Project GRAD. Guaranteed college scholarships from corporate sponsors made college a viable option financially for students, but this shift in post-high school plans was also dependent on establishing a new culture and frame of reference among students, administrators, teachers, and parents alike. Under the leadership of Principal Emily Cole and her staff, a cadre of passionate teachers who were committed to teaching and unrelenting in providing extra assistance to students, as well as a highly determined team of Project GRAD staff, 100 seniors were accepted to college within one year of Project GRAD’s inception, thereby blazing a trail of high expectations for future graduating classes.

Over the past decade, our judgement based on the interviews and focus groups is that these high expectations have “trickled down” throughout the school and broader community creating a ripple effect. Perhaps it is not surprising then that each morning the new principal ends announcements with the refrain, “And remember students, the choice is yours.” Many Davis parents may continue to be the last group to join the ranks of expecting their children to go to college. This is largely due to the need for their children to work out of economic necessity and/or their unfamiliarity with the American education system as first-generation Mexican-Americans. Nevertheless, there appears to be a growing body of parents and extended families deeply committed to the pursuit of their children’s higher education.

In interviews, students expressed that they appreciated teachers’ high expectations. One student sang the praises of her teacher who set high expectations and, equally important, held students to these high expectations:

> He is awesome. He, god, man, I think of everybody in the English department, he is the coolest one… Like all the other teachers, they’ll let you slack off. Like you’ll sit there, you’ll say, “Oh, I’ll do it later,” and turn it in all late, and they’ll still give you full credit. He won’t. He was that one teacher that was like, “I don’t take late work. It’s due on this day. You don’t have it, oh well. Because in college there ain’t going to be no late work. You’re not going to have a chance to make it up later. Do it when it’s due. If you didn’t do it, you just didn’t do it.” …At first I thought, “Nah, he’s a bluff. He’s lying.” All the teachers say that and then they let you make up work. But he really didn’t. So it was like, “Oh my god. I don’t want to fail English 3.”
>
> —
>
> I think I watched my first foreign film [in his class]. It was like French… and you know with the captions, and I never liked looking at those, because you know you have to pay attention and read and then you don’t really get to see everything that goes on. But it was good. I liked it.
>
> —
>
> You know how most teachers will tell you, “Oh, well” and they kind of baby you? He’s not like that. …He would always tell us, “You need to be proud of what you do. If you’re not proud of it when you turn it in on my desk, it’s crap.”
>
> —

> "You need to do it right. If you know how to do it, do it. If you don't want to do it, well, just don't give me something halfway." He was real straight up.

An interview with another student was interrupted by a highly regarded teacher at the school and recipient of a small grant from Project GRAD to assist students in her classroom with college guidance and applications. This interaction provided a glimpse into the high expectations that many teachers have for their students. This teacher referred to the interviewer as "an adult role model for the student to talk to about finishing his plans. Because this lovely individual with a recommendation letter that I wrote and years and years of knowledge… hasn't applied anywhere. Nowhere. Nowhere at all." And before leaving, she asked him if he had done his math homework. Once the teacher left, the interviewer commented, "She's on you." And the student replied, "Right, see. That's what I like about her. She wants me to succeed."

Planning and Decision Making

The role of money in students' lives is a theme that came up repeatedly throughout student, teacher, and program representative interviews as well as the parent and mentor focus groups. The guarantee of scholarship money in return for fulfilling basic high school requirements is an important piece of students' planning for the future. For many of these students, who are primarily from low-income families, there is pressure to contribute to the family's economic base. The project director of CIS explained,

> Their families are a big barrier, because they need their income. …I think it's important that we not place our values on them, if they don't want that [children to finish high school or to go to college], they're free to choose not to do it. But from my perspective, it's horrible for them to pull kids out of school to go mow lawns and work at the check-out counter the rest of their lives…to bring in that next month's rent. But they have a hard time seeing long-term. They're worried. A realistic worry of theirs is how is the rent going to be paid in December? And so that next month, how is March going to be paid? And that's very real for them. And so that's really what they're worried about. They're not worried about, you say college for four years… and they have a hard time conceiving not having their kid for four years. And they don't seem to be able to comprehend that at the end of that four-year period, how much better off and how much more money that student is going to make. It really doesn't make a difference, because what they're still worried about is March's rent.

Yet, the availability of El Paso scholarship, the TEXAS Scholars grant, and a number of other grants and scholarships made college attendance a reality for more than 125 students in 1998 (Project GRAD representative, personal communication). In other words, with money, college becomes a viable option.

A variety of other partnership activities also support students' planning and decision making. CIS offers expenses-paid visits to colleges both within state and out of state. This college exposure allows students to view college as a real entity as well as help them make more informed decisions in the college application process. In an interview one student described her thinking after visiting Bowdoin (Maine) through a Project GRAD program: "I like this college, but I'm not going to apply, even though I liked it, everything. The setting was all nice…but it was too far and it was too cold for me."

Although all potential El Paso scholarship recipients at Davis High School are required to attend two Summer Institutes at the University of Houston, students can elect to apply and to attend one of the more prestigious summer programs at Rice, Cornell, or Northwestern. According to student interviews, this experience away from home is extremely helpful for planning for their real college career. A senior who is attending Rice University this year, said:

> I went away from home for the Cornell [program] for the very first time. Never been on an airplane… and away from my parents, and I've never done that. And I stayed in the dorms, like I've experienced dorm life, the social, and the academic.

A former student who is attending Duke University this year, went on multiple out-of-state college visits through the CIS office and also attended an "intense" three-week program at Northwestern before his senior year of high school. The program at Northwestern consisted of taking a daily five-hour human biology course, including a daily exam, plus homework. Reflecting on his impending college experience, he said:

> I'm not nervous about it because I'm accepting it already that that's like what I need to do. Like, I need to get away. I need to meet new people. …Plus, like just because I'm more familiar with it, because I've been…to Northwestern, and like I feel as if I am familiar with like what I need to do or like how it's going to be.

Mentors can also provide students with planning and decision making support. In the "Other Adult Relationships" section, recall that mentors are helping students track their educational requirements for high school graduation and scholarship money, talk through college options, and provide students with college materials. By assisting students in these ways, mentors become surrogate "guidance counselors," a great asset to students in a school in which "managers" (combination role of guidance counselors and disciplinarians) are "spread thin," according to a Davis administrator. Our field research revealed that partnership activities that address financial assistance, educational monitoring, college visits, and summer programs at college can help students prepare for their educational futures.

Based on the experiences and perspectives of a wide cross section of people affiliated with Davis High School and its business partnerships, gathered through our interviews and focus groups, there is evidence linking partnership activities and the promotion of developmental assets. Given the design of this study and the complex nature of school-business partnerships at Davis, it is impossible to determine a causal relationship between specific partnership activities and the acquisition of specific assets. Nevertheless, the qualitative evidence lends credence to the argument that most students at Davis High School are receiving some form of an intervention that has the potential to positively impact their development. Please see Table 8 for additional examples of partnership activities that the qualitative data suggest can support developmental assets.

How Much Partnership Exposure Do Students Report?

Tables 7 and 8, based on the qualitative interviews and observations conducted at Davis High, and the observations presented above of individual students, teachers, staff, and parents suggest the wide range of partnership experiences it is possible for students to have. But the qualitative research does not suggest how much exposure students actually have. Our SPES survey responses offer a partial answer.

Through the survey, we investigated 10 kinds of school-business partnership experiences that students could possibly have experienced. We were interested both in the absolute amount of exposure students reported to these experiences and in the relationship between their levels of developmental assets and partnership activities. We had asked students to tell us if they had never experienced a given activity, had done so only once, or had done so several times. Arguably, students who have experienced a partnership activity several times, compared to those who have done so only once, would be more likely to be influenced or affected by that activity. Thus, we were especially interested in the relationship of students' developmental asset levels and their likelihood of experiencing the partnership activities several times. The 10-item partnership experiences scale had an acceptable alpha internal consistency reliability of .73 in this sample of urban, Hispanic and African American students, a nearly identical reliability (.75) found for a 7-item version of the scale tested with the pilot sample of suburban white students. Thus, the partnership exposure scale seems to be an internally consistent measure across diverse sample.

The School Partnership Experiences Survey clearly did not attempt to measure all these levels of partnership experience, and thus probably underestimates the true level of exposure students have to partnerships. Nevertheless, Table 9 shows the proportion of students reporting they experienced the various partnership activities several times, the total proportion as well as the proportion by the three asset quartiles on which data can be reported.

Table 9
Proportion of Students Reporting Partnership Activities Several Times, by Asset Level

Partnership Activity	Total	0-10 assets	11-20 assets	21-30 assets
Discussed careers connected with academic subjects	40	19	35	53**
Heard businessperson make a class presentation	23	6	19	34**
Had businessperson as a mentor	19	8	15	29*
Visited business on a field trip	13	4	10	18**
Heard about businesses sponsoring college scholarships	54	38	50	65*
Attended an academic event sponsored by business	23	9	20	31**
Heard about school-business partnerships	34	21	29	42**

N=424, df=6
** = Chi-square significant at $p \leq .0008$
* = Chi-square significant at $p \leq .007$

For one other activity, having taken a survey to learn of one's career interests, there were no significant differences (21% of the sample had done this several times). For two additional activities, having an internship at a business and working at a business based in school, the numbers of students having ever done so several times (14 (4%) and 19 (5%), respectively) were so small as to preclude further analyses. Still, for each of the remaining seven partnership activities, however, the results clearly demonstrate that students with higher levels of assets are more likely to report having had the experience several times.

Multiple exposure to such partnership experiences should increase the odds that students benefit developmentally from them. For example, multiple exposure to developmental strengths across family, school, peer, and community contexts (reviewed in Benson, Scales, & Mannes, 2002), or to ongoing, repeated mentoring relationships (Rhodes, in press), have been found to increase young people's positive outcomes beyond that of isolated or one-time experiences.

Although we did find this positive result, only one of these partnership activities--hearing about businesses offering college scholarships--was reportedly experienced several times by a majority of students. Even among the students with 21-30 assets, more of whom reported experiencing these activities than did other students, only two activities were experienced several times by a majority (hearing about business-sponsored scholarships, and discussing careers connected with class subjects). Thus, more exposure to each of these partnership experiences is clearly related to higher levels of developmental assets, but the majority of students do not report having such significant exposure to those partnership activities.

It is important to note that the Student Partnership Experiences Survey (SPES) results most likely underestimate students' actual partnership exposure. Although it is not possible for a survey to capture every business partnership experience that a student has, there are a number of key experiences that are

not fully reflected in this survey that were apparent in our interviews with students, teachers, administrators, and program representatives.

For example, some of the business-school partnership experiences not referenced in the survey include: attending a Summer Institute on a college campus, taking a class in which students could earn a certificate in a specific skill/trade, hearing former students speak about college experiences, receiving assistance in preparing college or financial aid application, receiving assistance in identifying jobs and filling out job applications, visiting a college campus, using the school daycare facilities for childcare, participating in an after-school program co-sponsored by the school and an outside organization (such as art projects and civic education programs), spending time with a mentor in the arts, having parents attend workshops or parent meetings at the school, taking a class in which you learned about proper job etiquette and received job readiness training, and receiving payment to participate in program activities.

In addition, two activities were "included" in the survey, but may not have fully captured the experience of some students. For example, we did ask about whether students held an internship at a business as part of a class (e.g., at the Univ. of Houston Hilton program). However, that question may not have distinguished fully between those students, and students who participated in work as a part of class but did not have a formal internship with a business. Similarly, we asked about whether students received information about college scholarships offered by businesses. But we were struck by the degree of direct facilitation students actually experienced: Many students were hand-delivered student-specific scholarship information/ applications in their homerooms, often without requesting this information. So they "heard" about business-sponsored scholarships, yes, but even more important, they were presented personally customized scholarship information. These examples underscore business' active participation in students' lives through deeper understanding of the ways in which things are done at the school.)

It is evident that the ways in which business partnerships can influence students' school lives is wide and varied. The value of utilizing both quantitative ("thin") and qualitative ("thick") methods in the study of such partnerships is apparent from the above, as well as the following example of the complex influences on students.

Family and Non-School Sources of Student Learning About the World of Work

In addition to talking with students about the rich and varied experiences they have had with work in the context of school-business partnerships, the qualitative component of this study identified additional ways students learn about the world of work, outside of school resources. Within the interview protocol, questions concerning employment status (i.e., whether or not students had ever or currently held jobs), career goals, and learning about work addressed both school contexts and out-of-school experiences. The qualitative interviews also indicated that out-of-school exposure and experiences with employment were also prominent for students. Types of exposure included working for family businesses, volunteering, retail and food service, as well as learning about work from parents and siblings. Three students were working or were interested in working as secretaries or in daycare. Only one student reported illegal employment, from working "off the books" in construction and selling drugs.

Family also appears to be a central resource for students' learning about work, because links between work and family members were made by nearly all of the students we interviewed. Students most often mentioned visiting parents' jobs, hearing parents encourage their children to pursue higher education to achieve careers with higher status than their own, and striving to work in the same fields as older relatives. For example, one girl wanted to join the military and eventually become a lawyer because her aunt had pursued those careers, while another student was aiming to join the Marines, because both his father and brother had been in the service. When working for family, several students did so without pay, possibly indicating a communal value for responsibility toward family. These unpaid jobs included working at a family flea market stand, performing odd jobs for a parent's carpentry business, and helping out at the family restaurant. Only one student remarked that his parents had taken him to visit a career site that particularly interested him; his father brought him to the fire house to learn about what it was like to be a firefighter, his career of choice.

One striking theme was that some interviewed students were interested in working, but explained that their parents would not allow it. According to these students, their parents believed that their children need to focus attention on school, and that work would require energy better spent on schoolwork. Even when her family clearly needed the extra income, one girl's mother would not allow her to work. Family emphasis on school, at the expense of extra income from after-school work, may arise from parents' feeling it important for children to surpass their own educational attainment. For instance, this mother did not want her daughter to work because she wanted her to succeed academically where she had not. According to this student,

> My mom just tells me, "I'm going to work, and I'm going to keep working, you won't have to work but just stay in school." And that's -- and I hear that, like, stay in school from her and she tells me over and over and I'm like, "I know." Because she never made it to high school.

These parents all drew connections between their children's academic achievement and acquiring higher status jobs. This was reported by students and parents. According to one mother in a focus group, "As long as there's a breath in my body, if I've got to flip burgers or whatever, you know, we want you to get an education." And, parents' messages appeared to have gotten through to their children. One girl noted that her parents had influenced her future goals because they wanted her to "go above and beyond what they have to do." Parents' messages about job status and higher education seems to contribute to students' aspirations to also pursue higher status careers. Just as parents wanted children to go beyond their own accomplishments, a clear theme was that students also had higher aspirations than simply to repeat their parents' careers, perhaps because they internalized their parents' messages, but also clearly because they witnessed financial and lifestyle difficulties accompanying their parents' jobs.

One student put it simply: "I would see my dad working his butt off in construction and we were living in an average house, and I was like, 'Well, I don't want to do that.'" Additional motivations include "giving back" to parents who work hard in low status jobs. For example, one student explained, "I want to get a good career so I could give them back something for everything they've done for me." This comment suggests that his parents' focus on his education has motivated him to succeed professionally, so he can give them something in return for their investment. Despite parents' hopes and expectations for their children to "go beyond" their own school and career achievement, parent focus groups indicated that most would like their children to attend college nearby or return to their communities after college. One parent explained her perspective as "go off and spread your wings and get an education, but don't forget where you came from." Another put this theme in terms of culture and said simply, "we're very rooted people."

Another theme that emerged was the role of bosses as informal mentors for students, with regard to higher education and career aspirations. One student remarked that her manager at a mortgage company had been helping her by reviewing college applications and reminding her to study hard. Only one student remarked that his co-workers had often suggested that he drop out of high school so he could earn more money now. Two students acknowledged that they had learned what careers *not* to pursue based on the jobs they had held, reinforcing their determination to pursue further education. For two students, low status jobs also appeared to motivate them to succeed. As one put it, "I've done the janitor work, I guess to learn my lesson, you know, 'stay in school.'"

The qualitative data also underscore the importance of not only considering the range and frequency of partnership experiences, but also the nature and potency of the partnership experience. "Nature," as it is used here, refers to the way a partnership is conducted, while potency refers to the effectiveness of the experience. Our data reveal that some partnership activities have the potential to have a much more profound impact on students' lives than others. For example, a student who has a consistent business mentor for several years who helps him or her with college applications and tracking high school graduation requirements is more likely to possess more developmental assets than a student who has heard about available scholarships on several occasions, taken a survey on career interests, and been on one fieldtrip to a business. In other words, it is imperative to not only consider the quantity of partnership exposure, but the quality, which is composed of both the nature and potency of that exposure.

Elements or Features of Partnerships Most Related to School Success

In terms of quality, Figure 1 below shows a conceptual diagram of how different partnership activities might affect students in differing ways. This framework contextualizes the following quantitative findings. It suggests that although the mere quantity or frequency of experiences may have a relationship to positive outcomes, a more comprehensive understanding requires knowing the motivational function particular partnership experiences play for specific students in concrete settings. One of the clearest findings from speaking with students, administrators, teachers, and partnership representatives is that school business partnerships at Davis High School feature a range of helpful activities and services, from providing college applications to offering daily inspirational announcements over the school intercom. In fact, "help" seems to be the central experience reported by students who participate in partnerships, though it manifests itself in different ways, depending on the partnership, the adults involved, and the students' needs.

Figure 1

A Continuum of Student Self-Regulation/Self-Motivation According to Type of Help

low
high

Inspiring[1] Strategizing[3] Pushing[5] Exposure[7]
Pen/Paper[9] Doing for the

child[11]
Encouraging[2] Accompanying[4] Teaching[6] Informational[8]
Financial[10]
Inner Drive Side by Side
Providing

[1]e.g, asking a student questions about his individual interests and goals.
[2]e.g. Supporting a student's interest in applying to competitive colleges.
[3]e.g. Assisting a student in a concept map to help her decide which college best meets her interests.
[4]e.g. Driving students to register for college.
[5]e.g. Reminding her students to fill out and submit applications before a deadline.
[6]e.g, instructing a group of students on proper conduct in job interviews.
[7]e.g, taking a group of students on a fieldtrip to a college campus.
[8]e.g., handing out information on scholarship opportunities.
[9]e.g., helping a student fill out job or college applications.
[10]e.g., providing a scholarship for students to attend college or compensation for attendance at a Summer Institute.
[11]e.g., calling colleges to request information for a student

Based on repeated similar responses in the student interviews, we identified three categories of help that partnership activities can offer. **Providing** refers to help that simply gives to students a resource that they had not had, but without real assistance in making use of that resource. This typically includes money (e.g., scholarships) or information (i.e., college or job applications). **Side By Side** refers to help that is characterized by adults interacting with students to make use of information or opportunities that are provided. These adults commonly act as liaisons for students by "pushing" them to submit applications, driving them to visit colleges, or signing them up for partnership activities. "Pushing," in fact, was one common concept repeated by the students involved in partnerships, and it was a form of help they appreciated. For one student in particular, the adults who pushed her to excel were also the same individuals who were most important to her, suggesting that at least for this girl, help that goes beyond providing opportunities was highly valued. The current Program Coordinator for Project GRAD was frequently named as an adult who offered this kind of help, as were the rigorous Cornell and Northeastern University summer programs.

Side-By-Side support, however, is distinguished from the third category of help, which we refer to as help that taps into a student's **Inner Drive** by engaging him or her in questioning personal beliefs and goals. This help was primarily described by students as coming from teachers, though the Scholarship Coordinator and mentors were also experienced in this way, and the counseling available from the CIS office may also offer such individual attention. According to a senior who was one of only two students planning to attend a college outside of Texas, her mentor was "amazing" and helped her decide on a college by drawing a chart of pros and cons that were specific to her needs. Interestingly, the only other senior planning to attend an out-of-state college also spoke at great length about receiving this kind of help. The teacher who provided it, he said, would make you "think about what you want to do and why."

Based on interviews with students and key informants, it appears that the form "help" takes may be associated with variations in school success, though longitudinal data would be needed to bolster this assessment. Specifically, this interpretation was suggested by interviews with students, in which one recurrent concern was that, once in college, they would miss the help they were receiving in high school, which they had found to be motivating for academic success. According to one student, college would be more "on your own," while another explained that he wanted to consider smaller colleges because he knew he wanted "schools that help out the students." One girl who had made use of CIS, PEP, and alumni who return to Davis to talk about college was disappointed that Davis did not help its students after high school. "They just teach you what you need to know in the end and that's it," she said.

It is striking that while a popular belief is that college freshman are excited about the freedom and independence of higher education, this sample of students seemed to be primarily concerned about student life without help. From finding that students came to rely on the help they received through partnerships at Davis, we surmised that students who reported help that encourages them to examine their own goals and
beliefs may internalize this help to self-regulate their own learning and complete college, which they all seemed to know would provide less support than Davis. If the only help students get is qualifying for scholarship money, they may lack the self-regulation to complete college, even though they are clear about their intentions to go. This interpretation was supported by reports from Project GRAD's Program Coordinator, who admits the program's difficulty with college attrition. Since the first cohort of GRAD students began college in 1992, only about half have graduated. One speculation is that the form of help and the manner in which it is provided may be associated with the extent to which a student is able to internalize that help in order to direct the course of his or her own learning.

The students who participated in the partnerships at Davis referenced the multiple forms of help they receive through those partnerships, which fell into the categories named above. Primarily, they spoke about help that "provides" for them, which included receiving scholarship money (Project GRAD), college applications (CIS), job skills (Houston Works), and information about various partnership opportunities open to them. In fact, it appears that providing what students lack was the initial goal of Project GRAD, as a means to increasing college enrollment.

According to the Project Coordinator of GRAD, the partnership endeavored to give students supplementary education through summer institutes (i.e., a catch-up opportunity) and to fund them through college, in effect tackling two of the largest obstacles to higher education faced by these students. Without this kind of help, especially the financial assistance, it is likely that many of the students would not aspire to higher education and would consider high school graduation to be the final marker of their school achievement. Similar to Maslow's hierarchy of needs, the business-school partnership appears to provide the foundational materials needed to reach college, effectively showing possibilities and opportunities that students may not have believed were attainable when lacking such resources. These are the resources that likely assist students in applying to college and enrolling. Yet, based on the difficulties reported by the school in getting accepted students to register for college, we speculate that these levels of help (i.e., providing) and success (i.e., college acceptance) may not be enough to carry them through college graduation. This interpretation is supported by the students cited in the previous paragraph, who explain they are concerned about not having the "pushing" that is a hallmark of the Davis experience. Without internalizing the more personal, inspirational, and encouraging forms of help—which seem to come from relationships rather than just being given money and or materials—these students may struggle to succeed at college. Importantly, however, the students who express this anxiety typically say they believe they can succeed despite the struggle, indicating that although their self-regulation may be tested, it is still a trait they exhibit.

We speculate that the students' ability to withstand this test may be connected to whether or not they have received additional, more interpersonal, forms of help through the partnerships and the school, because this kind of help may bolster the sense that they can succeed. As mentioned, "pushing" characterizes the kind of help many of the students claim to receive alongside adults (i.e., **Side by Side**), with a teacher and Project GRAD liaison manifesting this form of help most often. Students also often remark that the Scholarship Coordinator for Project GRAD also "pushes" them, which we came to understand as a welcomed and appreciated form of pestering. The coordinator describes a teacher's remarkable commitment to pushing students to a higher level of achievement and through the gates of colleges that may have seemed closed—before GRAD expanded their opportunities and Miller strategized with students to take advantage of them. In the GRAD Project Coordinator's words,

> She has a group of students who she works with on a continuous basis to get them in those more advanced schools, well, the schools with more rigorous requirements. Okay? If you're going to Rice University, if you're applying to Cornell, there is a much more rigorous process than applying to community college. And over the Christmas holiday, for example, she had them filling out applications, writing essays. She had a bunch of adults over helping. Because it takes that. . . . There are more kids who have higher, or bigger, dreams now. And, it takes a lot of adults to work with them. . . And there are so many adults on this campus who the kids will, they wouldn't get their paperwork filled in. They wouldn't get enough money in scholarships to go to the schools we're talking about. I mean, kids freaking out the week before they're supposed to leave for college, and this teacher, like, saying, 'You're going to sleep at my house the night before, and I'm going to drive you to the airport. . . . They never seem to stop.

Whether reminded to submit applications and other paperwork or accompanied to the airport, the students who receive this form of help have an adult who will stay by their side in order to get them to college. The GRAD Project Coordinator explains the scope and importance of this kind of help,

> They got letters sent home, just like they get a letter from the Registrar in the senior year saying 'You need this for graduation.' They got one from the scholarship saying, 'You need this for your scholarship.' *Any student who did not earn their scholarship worked at not earning their scholarship, because we exhausted them*. They knew exactly what they needed to do.

She believes that because of this persistent "pushing," Davis' college entrants rose from 20 to 101 students in 1992. Presumably, giving them the scholarship application forms was not sufficient in getting

students to college, and help in the form of persistent reminders was necessary and effective, to the degree that, as she explained, students had to work to *not* get a scholarship.

Despite the financial support, and the apparent ease in securing it, most Project GRAD students do not graduate from college in four years, at which point their funding runs out. From the entering college class in 1998, less than 10% graduated in 2002. In addition, the students who drop out of college tend to do so in their first three semesters, according to the project coordinator, and GRAD and Davis have even faced the problem of students not registering for school after being accepted. As she explains, many of these students have gratefully taken the help provided by the partnerships and from teachers and certain staff, but it is possible that they have not internalized that help in order to help themselves, potentially inhibiting their own success. The GRAD Project Coordinator tells a powerful story about a call she made to a promising student who had not picked up her scholarship money:

> This is what one of the kids told me when I, when I called her in August and said, 'You haven't requested your check yet. Where are you going to school?' And she said, 'I don't know.' I said, 'What do you mean, you don't know?' And she was a smart kid at Davis. She was one who always talked about college. And she said, 'Well, you have to remember that for twelve years I never had to fill anything out. I just showed up. And I planned to go to college. I talked about it. But I never did anything.'

Strikingly, her response was a promise to "get you enrolled for the Spring." The kind of help provided by GRAD and its key players seems to be necessary and fundamental to facilitate these students' access to higher education. Yet in order for students to follow through and graduate from college, we suspect that help that taps into students' inner drives may be essential. By accessing students' personal beliefs and purposes, help that inspires and encourages may enable them to become their own agents of change, as opposed to relying on others for the change in their lives.

As noted earlier, this type of help appears to come mostly from teachers, the Scholarship Coordinator, and mentors, according to students. A student who had previously been involved with the "wrong crowd," notes that one teacher was critical of her decision to lead a different lifestyle and focus on school. "He raised my self-esteem," she says, telling her it wasn't too late to go to college and encouraging her to believe that she was capable of school success. Listening and believing his assurance seems to have helped motivate her to pursue a career in medicine, in which she seems personally invested after a powerful hospitalization experience.

Other students identify several other teachers who have encouraged them to deeply question their beliefs, goals, and purposes, motivating them to write about philosophical texts in their free time and to start a reading group. The interpersonal connection seems particularly important, but so do the form and content of the communication between student and adult.

Reflecting on mistakes in his first few days of teaching, one teacher notes, "I realized that if there was one thing that I would have wanted to communicate to these students in the past four days it was that I cared about them." He started having students write a letter to him at the start of the school year "for them to be able to express themselves, to open a line of communication to tell me how they were feeling." His purpose, he explains, was to "communicate the idea of 'I care about you and you're important to me.' I tell them before we write, I say, 'The reason I do this is because I believe that, um, if I know you better, who you are, I'll be able to teach you better. And if you know who I am, you'll be able to learn from me better.'" By "knowing" his students, a teacher believes he can better serve them. This approach seemed to motivate at least one stellar student, who will attend a prestigious university on full scholarship in the fall. This teacher has taught him how to work hard, he said, which the teacher considers imperative in preparing students to meet the massive step up in rigor once they reach college. By preparing them while supporting them emotionally, he may be helping students to succeed by graduating from college.

This teacher's counterpart in facilitating the adjustment to self-reliance and academic rigor appears to be another teacher, who a student explains,

> has basically helped me to question myself and my motives and like helped give me a lot of direction of like where I wanted to go, what I wanted to do, and like why. Most of all, like why. Because he just always asks us that. So, I mean, he influenced me in that way in setting goals and choosing a path.

This teacher enabled the mail student to question motives, explain himself, and connect his self-identity to his educational and career decisions, i.e., to tap his inner drives for self-actualization. In so doing, the teacher seems to be supporting his motivation to excel in partnership programs like the summer institute he attended at Northwestern, which also likely prepared him to live on his own away from family and his community. This teacher describes his manner with students in this way:

> I enjoy helping people to—and I'll say this and I don't mean it in a trite way—to kind of actualize the better parts of themselves. Like when I see people who want to do something, I get great joy and I feel that I have a somewhat of a talent at helping them take the steps necessary to do that. So when I see someone who really wants something, and I can help them get on that road, that is very, you know, affirming for me. . .

He admits that his circumstances often require him to assist students by taking too much control over their decision-making. However, he clearly prefers to support them as they uncover their own goals and paths, distinguishing between his approach of "talking *with*" students and others' ways of "talking *to*" students, which he vividly describes as "bleeding out the relationship." He says,

> Sometimes I feel the responsibility is thrown on me that I have to make the decisions for them. Like, 'Okay, what is really best for you? Well, this is what I think is best for you.' And other times, it's the complete opposite. I turn it over to the students and say, 'Look, what do you want to do? Where do you want to be? Okay, well what do you need to get there? Great. How do we get there? Let me help you take those steps."

In contrast with those adults who help greatly by "pushing," this instructor seems to maintain enough distance for students to take care of themselves, after he has successfully helped them clarify their own goals. For example, he explains, "I've had some students who are this year [college] freshmen, who have been e-mailing me. And it's funny because I won't e-mail them first. Like, I won't be the one who writes them an e-mail and says, 'Hey, how's it going?'"

The student may have internalized this teacher's lessons in the form of motivation to succeed because achievement is what he really wants for himself. He may also have increased his self-regulation from yet another teacher that has supported him with a sense that he can do it. Like this male student, other students name teachers and adults at the school who have been critical to their aspirations by tapping into their specific motivations and goals. It is this more intimate interpersonal connection that may correspond to greater success in college, while the relationship that comes from "pushing" may be less oriented around the individual student and more focused on college enrollment in general. Yet, side-by-side relationships likely enhance students' self-regulation and achievement to a greater degree than simply furnishing them with financial assistance, which although a crucial requirement for their entrance to higher education, is not sufficient for their ultimate success in college.

Although the various forms of help that partnerships offer seem to scaffold students toward success in college, for some students high school graduation seems to be their final educational achievement. Students who choose the route of higher education opt for long-term benefits over short-term attractions or necessities. This student drove home the point of such delaying of gratification. He explained that some teenagers drop out of high school because, "They like just didn't want to do the work… The way I

see it is you could either get the money right now, or you could get it later on. And like it doesn't necessarily have to be a lot more, but you can get it later on. But they just chose to get it right now. Like, they just saw the short end of the road." Based on our interviews with college-bound and non-college bound students at Davis, it is evident that college-bound students are purposefully choosing to forego the appeal of immediate adult status, economic self-sufficiency, and the activities of peers in order to pursue a future of financial gain, higher social status, and self-fulfillment. Seniors on the college track often have a prestigious career (e.g., medicine, law, business management) in mind and long-term goals of financial stability and providing for their extended families. Providing the alternative point of view, one 10th grade student asked his interviewer,

> …If I know I'm just going to go, like, for a year or a couple of months, and I say, "No, I can't do it" and just drop out, that's like you're missing a lot of money. And you're wasting your time. Because I don't want to be, you know, going to college and stuff and then just dropping out, wasting time.
> …
> But why should you be wasting your time in school, Miss, trying to learn mechanics when you can just go, like, apply and try to get job there?... I'm going to learn right there."

Students, teachers, administrators, and program representatives identified a number of conditions that may pose challenges to students being able to meet academic goals. Most often cited was students' need to earn money for the family, or the need to convince family members of the long-term benefits of a college degree. It is important to recall that the high school under study is set in a low-income, urban community, predominately populated by first- and second-generation Mexican-Americans who are not versed in the American educational process. Students were also drawn to post-high school employment by the lure of immediate income, in order to support themselves. A small, but noteworthy, proportion of interviewed students were also considering returning to Mexico, where they were already considered adults and made good money ranching or through other family businesses. A final type of obstacle to college-going and success in college was students' own personal predilections. Several students expressed concern that they may have difficulty turning down parties and friends for homework and study time, especially when taking into account the increased independence and responsibility of college academics.

Of course, the decision to delay gratification for a college education also is not a one-time event. Over the college-going process, students must revisit this decision often. During times of stress in particular, it can be difficult for students to stay committed to the idea of future gain when immediate gratification is the alternative. It is perhaps in these moments that students can best make use of the internalization of help they received from important adults through the partnerships at Davis.

How are Levels of Partnership Exposure Related to Students' Levels of Developmental Assets?

If exposure several times to any *single* partnership activity is related to higher levels of developmental assets, a natural question is, what is the effect on developmental asset levels of students experiencing *several activities several times – more exposure*, as compared to students with less exposure?

The qualitative vignettes clearly suggest that repeated exposure brings added benefits, but we also conducted a further quantitative analysis that indicates it is not only greater exposure to individual partnership activities that is associated with higher asset levels. Relatively more frequent exposure to a broader range of partnership experiences also is associated with higher asset levels.

In this analysis, we gave students 2 points for activities they had done several times and 1 point if they had done an activity only once. Thus, the maximum scale score across the 10 partnership activity items on our survey was 20. We divided the sample into rough thirds—high, medium, and low levels of partnership exposure--based on the distribution of their total scores. We then conducted an analysis of

variance (ANOVA) to investigate how high, medium, and low levels of partnership exposure might be related to developmental asset levels.

Frequent exposure to multiple partnership activities was significantly related to students' developmental asset levels. At each greater level of partnership exposure, students had higher levels of developmental assets ($F(2.384)=28.73$, $p \leq .0001$).

Tukey post hoc comparisons showed that students with high partnership exposure had significantly higher asset levels than students with either medium or low levels of partnership exposure. Similarly, students with medium levels of partnership exposure had significantly higher asset levels than students with low levels of partnership exposure.

The magnitude of this relation is perhaps better illustrated in Table 10 by examining the proportions of students in each asset category by each level of partnership exposure.

Table 10
Proportion of Students in Asset Levels by Levels of Partnership Exposure

	0-10 assets	11-20 assets	21-30 assets
HIGH partnership exposure	5	43	44
MEDIUM partnership exposure	13	57	29
LOW partnership exposure	27	56	16

N=385
Chi-square 54.16 (6df), $p \leq .0001$

These data show that students with high partnership exposure are 52% more likely than those with medium exposure and 175% more likely than those with low partnership exposure to have above-average levels of assets (21-30 assets). Those high partnership exposure students are also 160% less likely than students with medium exposure and 440% less likely than students with low partnership exposure to have below average levels of assets (0-10 assets).

Thus, a central hypothesis of the study, that partnership activities and developmental assets would be positively related, is strongly supported by these data. Given the consistent results showing how much levels of developmental assets are associated, not only with positive academic outcomes, but with a broad array of lowered risks and increased thriving among adolescents, these differences showing high partnership exposure to be related to high developmental asset levels are promising. They suggest that high levels of partnership exposure may also be associated with positive developmental outcomes, a relation we consider below.

An important question is whether students with more developmental assets somehow choose or get selected more to participate in these partnership activities, or whether, in contrast, exposure to partnership activities somehow contributes to the pathways for students to build their levels of

developmental assets. Because this was a cross-sectional and not a longitudinal study, we cannot readily disentangle the data to answer that question.

The qualitative data offer anecdotal evidence, however, that exposure to partnership activities may be contributing to students' developmental assets, and thereby affecting positive academic outcomes. For example, Davis graduates' college retention rates are low. Only 43% of the class of 1992 have graduated from college, and 15% from the class of 1996. If the partnerships were merely enriching students who were already doing well, perhaps those college completion rates would be higher.

In addition, during our interviews, high school and Project GRAD administrators noted that the partnership emphases have changed over the last few years from preventing dropout in high school to preventing dropout in college. This suggests that the partnership efforts are seen by administrators as having had some success in strengthening high school outcomes.

Is the Level of Student Partnership Exposure Related to their Academic Achievement?

The primary academic outcome measures in this study are student self-reported grades, student actual grades and GPA, and achievement test scores on the Stanford and TAAS tests. In addition, several items on the *School-Business Partnership Experiences Survey* asked students about how their academic interest, motivation, and habits might have been affected by partnership activities, and these self-reports represent secondary academic outcome measures. Finally, there are additional risk behavior patterns (e.g., problem alcohol use) and thriving outcomes (e.g., leadership) that are not directly related to academic achievement, but that affect student learning and performance, and so they too are measures of interest.

Actual Grades/GPA and Test Scores

Examining the relation of actual student grades/GPA to assets and partnership exposure was difficult. First, about one-third of students had a GPA in 2001 and more than half had a GPA in 2002 that was based on less than all four "major" courses (English, Math, Social Studies, and Science). In addition, about half the students had missing data on the Texas Assessment of Academic Skills (TAAS). These problems reduced the effective sample size considerably, thereby greatly increasing the likely error in the results. Moreover, when we attempted to link student surveys with student records to check for gender and grade matching, we found that only 89 students' grade level as reported on the survey matched with the grade level in their student records. HISD staff were unable to explain how this discrepancy could occur. Because of this very poor matching rate, it is not certain that the surveys and student records data are reflecting the same students, thus rendering questionable any attempt to examine the relation of survey and records data. Finally, as reported earlier, very few students experienced the highest level of assets, thereby increasing the error in that cell and reducing the total variance available for exploring relationships among assets and academic outcome variables. Thus, although we did conduct ANOVAs to examine the relation of GPA, and test score data to levels of assets and partnership exposure, the results are not reported here because they cannot be considered valid. These relationships must be explored in other research with student records data sets that do not have as much missing data, and where confidence is high that survey and records data do indeed match.

Self-Reported Grades

An ANOVA conducted on the relationship of self-reported grades to levels of partnership exposure showed a significant effect of partnership exposure ($F(2.422)=14.92$, $p \leq .0001$). Tukey post hoc comparisons showed that students with high levels of partnership exposure were significantly more likely to report getting mostly A's than were students with either medium or low levels of partnership exposure. However, students with medium levels of partnership exposure did not report getting mostly A's at a significantly higher level than students with low levels of exposure (see Table 12).

School Problems

Although partnership exposure appears to makes a difference in whether students get very high grades (mostly As) or not, the question arises, does exposure to partnership activities also make a difference for students at lower levels of achievement or connection to school? The answer appears to be yes.

"School problems" is a risk behavior pattern defined by students maintaining *either* a below C average *or* having skipped two or more days of school in the last four weeks, or *both*. An ANOVA showed that students with high levels of partnership exposure were significantly less likely than either those with medium or low exposure to carry sub-par grade averages or have school attendance problems ($F2, 428)=16.04$, $p \leq .0001$). In addition, those with medium exposure were less likely to have such school grade or attendance problems than were students with only low partnership exposure. Thus, frequent exposure to multiple partnership activities seems to have at least as strong a relation to school attendance and maintaining at least a C average as it does to students' chances of earning mostly As.

Academic Motivation, Basic Skills, and Career Preparation

Chi-square analyses showed that students with high levels of partnership exposure also were more likely than students with lower levels of exposure to agree that those partnership activities had positively affected a number of attitudes and skills that reflect or can materially affect students' academic motivation and performance. (Table 11 shows the results.)

Table 11
Proportion of Students Reporting Positive Outcomes from Partnership Experiences,
by Partnership Exposure

Partnership experiences…	N	All	High Exposure	Medium Exposure	Low Exposure
Increased interest in regular classes	212	51	67***	51	29
Improved schoolwork	319	77	86***	75	66
Improved reading	293	71	77	74*	56
Improved writing	299	73	78	77**	58
Improved math skills	283	69	77*	67	57
Improved decision making/problem solving	323	78	88**	75	68
Improved creative thinking	319	77	86**	76	66
Improved responsibility	343	83	91	85***	69
Have often discussed college with teachers	192	46	65***	40	27
Have often discussed college with parents	266	64	73	67***	46
Have talked with an adult about careers	253	59	74***	56	43
Have talked about careers with a person in a field of interest	202	47	58***	47	34
Classes taking will help me get a good job	287	68	81***	68	48
Plan to go to 4-year college after high school	120	28	37*	24	21

N = number of total students, out of sample of 429, responding with "agree"
Dark shade = High exposure students agreed significantly more than both medium and low exposure students
White = High and medium exposure students agreed significantly more than low exposure students
*** .0006
** .002
* .02

Several conclusions are apparent from these data. First, substantial proportions of students who enjoy just a little participation in partnership activities felt that those experiences helped them in basic academic skills, such as improving their reading, writing, and math capabilities. About 60% or more of even students with low exposure reported those positive benefits.

Second, a moderate amount of exposure to partnership activities appears to reap additional educational rewards. Students with moderate partnership levels reported significantly more improvement than low exposure students in their reading and writing skills, as well as their sense of responsibility, and whether they have "often" discussed college with their parents.

But third, for students to report deeper effects of exposure on academic motivation, schoolwork, career preparation, and future educational plans, the data suggest they need to have high levels of partnership exposure. Only students with high partnership exposure agreed significantly more that partnership experiences had made them more interested in their regular academic classes, improved their schoolwork, and improved their problem-solving abilities and creative thinking. Students with lower levels of partnership exposure did not report such effects.

Moreover, those students with high partnership exposure were more likely to think their efforts would pay off, in that the classes they were taking would help them get a good job. That is, they could see the connection between what they were doing now and their prospects for the future. Students without high levels of partnership exposure did not make that motivational connection nearly so often.

Students with high exposure to partnership activities also were far more likely to have discussed college with their teachers and to have talked to an adult about careers, especially to have talked about careers with a person who was already employed in a field the student was interested in. Finally, they were significantly more likely than students with either medium or low partnership activity exposure to plan to attend a 4-year college after high school were.

Roughly an additional 40% of all students planned to work first and then attend a 4-year college, but there was no difference across partnership exposure groups in the proportion of students choosing that post-high school option. Where partnership exposure made a difference was in students' plans to go to a 4-year college immediately after graduation. Whether those students with high partnership exposure actually do attend college in greater proportions than students with less partnership exposure requires longitudinal follow-up. But since the intention to do a behavior has been shown repeatedly to be a robust predictor of whether someone actually does that behavior in the future (Azjen, 1988), there is some grounds for speculating that differences in partnership exposure could contribute to differences in rates of college-going.

How are Levels of Partnership Exposure Related to Other Risk Behavior Patterns and Thriving Outcomes?

Partnership experiences had generally positive relationships with other measures of student well-being, including high-risk behavior patterns that can jeopardize adolescent health and school success, as well as thriving outcomes that can support and enhance health and school success.

Table 12 shows that the level of partnership experiences made a significant difference in three of 10 risk behavior patterns studied and five of eight thriving outcomes. The positive effects of partnership exposure levels on promoting good grades and lower levels of school problems among these urban high school students already have been reported.

Table 12 Proportion Reporting Risk Behavior Patterns and Thriving Outcomes, by Partnership Exposure			
	High Exposure	Medium Exposure	Low Exposure
Risk Patterns:			
Alcohol (low >hi) F(2.426)=3.99, p .01	24%	32%	38%
Driving & alcohol (low >hi) F(2.426)=3.32, p .03	24%	32%	36%
School problems (low & med. > hi) F(2.428)=16.04, p .0001	9%	22%	22%
Thriving Outcomes			
School success hi >low >med.) F(2.422)=14.92, p .0001	21%	10%	5%
Valuing diversity (hi >low) F(2.426)=3.47, p .03	85%	78%	70%
Maintaining health (hi >low) F(2.424)=6.98, p .001	52%	47%	36%
Helping others (informal) (hi >low) F(2.420)=3.40, p .03	88%	80%	70%
Exhibiting leadership (hi >med. &low, med. >low) F(2.428)=9.25, p .0001	79%	70%	51%

But a high level of partnership exposure also seems related to lesser student problems with alcohol misuse and driving with someone who has been drinking. By reducing the negative effects students may experience if they have such alcohol-related problems, the possibility for their enhanced academic achievement is supported. Not surprisingly, students' ability to limit such substance use problems is reflected in the greater success students with high partnership exposure report in maintaining their physical health.

In addition, students with high partnership exposure levels report that they engage in more prosocial behavior than other students, such as informal helping of friends and neighbors, and valuing racial diversity. The combination of those social connections and the school success related to high partnership exposure levels may then also make it more likely that those students either are chosen or volunteer for more leadership roles than other students. Exhibiting leadership is indeed another thriving outcome with which partnership exposure seems to have particularly strong relations.

Importantly, however, for most of these risk behavior and thriving effects (except for exhibiting leadership and limiting school problems), it may be only students who report high partnership exposure levels who are significantly more advantaged. Students with only medium levels of exposure generally do not fare significantly better than do students with low exposure levels on most risk behavior patterns and thriving outcomes.

These quantitative results reflect group averages, of course, and may mask more optimistic results examined at an individual level. For example, a somewhat different perspective is provided by the qualitative analysis, which can capture more nuanced meaning. Through analysis of student interviews, it is possible to surmise that even relatively lower levels of exposure to school/business partnership experiences might nurture developmental assets in students at risk for early pregnancy, substance abuse, violent crime, and high school dropout. One such student is a fifteen-year-old girl, and the oldest child of four in a single parent family. Her mother struggles to provide for the family working two jobs, or double shifts, and she has had responsibility for the care of her younger siblings from an early age. She has been attending night school, in order to catch up with her freshman class.

> …. And when I was like around the age of--most people don't believe it, but my, whenever my sister was born that's when I kind of had to learn how to clean, make the bottles, get up at night and, like I was like 4,5. ..I've been raising my sister and sometimes she calls me mom, because I've been around--like, she's, my, I was around more than my mom. She was always working. She hardly ever saw my mom. …at night my mom would be working or something, I would be home with the kids. And I'd, I would like feed them, I would wake up at night and make them bottles, change her diapers, like, and like keep my brothers clean and, um, you know, since I was 5 or 4, 4 or 5, and it was so hard…

The severity of the family's financial strain has resulted in numerous relocations, which has meant many changes in schools for her--a risk factor frequently associated with failure to connect positively with school, and with early drop out.

> …I've been to like, probably two different middle schools, and so far one high school, and like, eight different elementary schools…My mom just had too many problems in one place and then we moved to somewheres better and then, and then like at times it's like the rent and stuff would go real high..and the fact all the bills and…everything and sometimes she couldn't afford it, so we would move to something a little lower class.

Her mother quit school in eighth grade and gave birth to her at the age of fourteen. By the age of nineteen, she had had her three other children. She has witnessed her mother's struggle and exhaustion, and her mother supports her school attendance as much as she can afford to, given the family's poverty.

> …So that I remember that was a point in our lives that we had no home, we had no food, we had no money, and we would sleep in a car. …my mother would get food, she would try to get food, me and mom wouldn't eat. We would give all to my brothers and sisters so they could eat, and I, I got real sick. …at first I feed my brothers and sister. And then make sure they eat and all. ..they come first. I would cry, because I don't know, like I would know that my mom was trying but just wasn't doing, it wasn't doing us much, and it was just real hard. And my brothers really didn't understand what was going on. My sister either. And when they would ask me what's wrong and what's going on, I'd be like, 'Everything's okay.'

This student's goal is to graduate from high school. For several students that we interviewed, graduating from high school was a "high expectation". Given the severe poverty and/or the degree of significant dysfunction in their families, i.e., absent mother, drug involved parents, criminal activity, several proudly aspired to being the first in their family, or extended family, to graduate from high school. Given the family's financial struggles and the history of early pregnancy and school dropout, she has, to date, surmounted formidable challenges to staying in school. The fact that she has been exposed to partnership activities and has utilized services and resources, even minimally, may be providing additional developmental assets in terms of adult support, for example, that will increase her chances of graduating high school, despite her considerable family responsibilities.

She has known about Project GRAD since elementary school, and GRAD currently sponsors her attending night school to catch up with her classmates. She utilizes the counseling services through Communities in Schools, a GRAD supported resource, which may have the potential to connect her with other resources for her family as well as herself. She has been on a field trip to a college campus, and has a friend who has told her about having a mentor through the GRAD/El Paso mentoring partnership program at Davis.

> Interviewer: So what was that like for you, being on a college campus?
>
> Student: …I wanted, because I've never really been to like visit or nothing like that, and I wanted to see how it was like. I wanted to see people there, I wanted to talk to people there and see how it's like and what they, I wanted to just, I wanted to know. I just wanted to know and I wanted to talk to people who are going there and I wanted to see what they're reading and what they, what they want, what they're doing, and, like how college for them is…they said, like, at first they didn't think college was for them. They thought college was impossible…And they said that scholarships, that's how they're there. …Some from there went to Davis. And they said that helped a lot.

Her history was one of the harshest described to us of the thirty student interviews we conducted. For students with such extremely low levels of developmental assets, even minimal exposure to school/business partnership activities might be providing adult relationships outside of the family, as well as exposure to higher education, that would otherwise seem unlikely to occur, given the family's struggle to survive financially.

Another student is the only daughter of immigrant parents who return to Mexico each summer to ranch. Her father works in construction, and her mother does not work. She has four older brothers, some of whom have attended college locally. Her father has told her that she will need to earn the money, herself, to go to college. She has been exposed to college through her brothers and an older cousin. However, the additional support that she receives from the partnership activities, as a Latina of an immigrant family, appear to nurture and support her goals of higher education. She described her participation in HoustonWorks, a federally funded program that has partnered with GRAD, as attending school in the

summer where "they pay you for going". She has seen Project GRAD tee-shirts, and although she doesn't make the connection to GRAD, she knows about the scholarship and Jesse Jones Summer Institute.

> Student: …Because in order to get, I think it's the El Paso Scholarship, you need to attend two summer institutes.
>
> Interviewer: …And so you're trying to get that?
>
> Student: Yeah
>
> Interviewer: And how much money, do you know how much money you get for that?
>
> Student: I think it's $4000
>
> Interviewer: Is there anything else you have to do for that?
>
> Student: And I think keep the grades up. I think that's pretty much it.

Her awareness of Project GRAD, and her utilization of partnership activities, even minimally, could bolster the strides the family has made in achieving higher education for their sons.

Another female freshmen we might describe as vulnerable to risk, given her family context. She is the youngest girl in the family, with three older siblings, and two younger brothers. Two of the three older siblings are incarcerated for murder and rape. She has a close relationship with a sister who was involved in partnership activities as a high school student, herself--another theme common in the qualitative analysis. Siblings often introduced young brothers and sisters to Project GRAD and related resources and services. Despite becoming pregnant in 9th grade, her sister has continued her education through the University of Houston-Downtown, and secured a job in a law office through supports from Communities in Schools. She has been exposed to CIS, and had job training through the HoustonWorks program at Davis.

> …As far as the CIS the program, the lady at CIS, she, I think she's the, um, the, um, College Bound coordinator or something.…I don't' know her name. And, um, she, I guess you can go to her, because like I had went there once, and she asked me, she thought I was an upperclassman and she asked me, and I was like, 'No, I'm just a freshman.' So, um, she, she can help you decide on what college you want to go to, she'll look into it for you, or whatever.

She also described going on a college field trip when she was in middle school through CIS (Communities in Schools) where students visited campus dorms and the campus radio station. She remembers that "the lady" told them that this school was good for law, which is the area She is interested in pursuing. Although She is not involved in Project GRAD --"I don't get into all that."-- she does have a strong connection to afterschool activities that are partly supported by that partnership. "I'm a twirler, cheerleader, and I'm on track." She also referenced positive experiences with teachers who "explain things", and an English teacher who "challenges" her.

> …we had to… make up a story about an epic hero and all this stuff. And I had no--I didn't know what we was talking about, and I was like--but he explained it. .. as far as writing he make you expand, like, well, what you're supposed to write.

> And if it ain't right he goin to write what you do wrong, why it ain't right and you know, go back and fix it.

Her connection to positive afterschool activities, her engagement with some of her teachers, her job skills training, and her exposure to experiences and resources around higher education may provide additional developmental assets that can augment the support of her sister.

Another male student we interviewed described himself as a "sixth year senior", having been in and out of school due to suspensions. He was previously gang involved and explained to us that gang members had often been his friends since elementary school. Leaving the gang meant leaving a network of friends, although he also referenced the number of friends who had been killed, victims of violence, expelled from school or dropped out. He has recently suffered a severe car accident that ironically, may also have contributed to his changing his life course for the better.

> Interviewer: You got kicked out of school last year. Why did you decide to come back?
>
> Student: Um, because I don't know, I just, like, I started here and I wanted to, I guess, finish it over here. And my brother graduates so and like I also want to graduate because I know my sister and my other brother's going to graduate, so I--graduate, and my mom, she attended here when she was little, but she didn't graduate… I had to earn my way back. I had to go to another school and like get some credits to show that I earned something to come back.
>
> Interviewer: What's making you be able to stay this time?
>
> Student: I just want, I'm too old, I'm considering myself old in school. ..there's like people like telling me why don't I get a GED and stuff. Like, no, I didn't go this far to--just for a GED. I want to graduate. I want a diploma. Something to put my name to.

He utilized Communities in Schools as a support in seeking work, and described his job of tutoring elementary students.

> I would help them out with their homework, and like give them like problems.… …I guess they didn't do that to us when I was a little kid at [Elementary School], and like there was nobody there to help us out and stuff. We had to like basically learn everything else, everything on our own. So I decided to help them out and they were paying, so might as well take the money.

He also referenced a teacher, one mentioned by many other students we interviewed, who has helped him. He contrasted her with teachers who "just put the problems on the board, answer it."

> She, she, she helps us out …understand the things correctly. Like where we could learn.

This teacher has received support from Project GRAD for the time she spends with students outside of the school day tutoring and assisting students in higher education planning. This student's life may have changed course for the better due to a life-threatening experience. He has become more positively connected to school and focused on graduation. School-business partnership activities and resources have possibly fostered his positive connection to a teacher, and the tutoring job may have contributed to

his feeling valued. These additional developmental assets may, in turn, provide further support to his finishing high school.

The illustrative quotes presented here emphasize the importance of using a mixed methods research design in order to capture critical impacts that may be inferred from qualitative data but not be evident in quantitative data as statistically significant. Quantitatively, students with frequent exposure to a range of partnership activities show an increase in developmental assets. However, the qualitative analysis suggests that there may be some positive effect for students with even minimal exposure to partnership activities, particularly those suffering a dearth of developmental assets. One question for further research is whether the students with perhaps the least exposure to developmental assets in their neighborhoods and families may in fact benefit from minimal exposure due to the very fact that there are so few factors in their environment promoting their thriving.

DISCUSSION AND LIMITATIONS

In this study, we have used both quantitative and qualitative analyses to examine the impact that school-business partnerships may have on students' developmental assets and school success. This was an exploratory study in one urban high school, whose student population was almost entirely Hispanic low-income or African American low-income students. Thus, our findings may not be generalizable to other settings and students.

Despite those caveats, our quantitative and qualitative data converge in suggesting the following:

1. There is a positive relation between the degree of exposure students have to school-business partnership experiences, and the level of developmental assets they report in their lives.
   The greater their exposure to partnerships, the more assets students report.

2. There is a positive relation between exposure to partnerships, and measures of school success. The more their partnership exposure, the better students' self-reported grades, attendance, academic motivation, career preparation, and supportive outcomes, such as lowered risk behaviors and increased leadership and maintaining health.

3. There is a positive relation between students' levels of developmental assets and measures of school success. The more developmental assets students report, the better they do on all those measures.

4. There are identifiable features of partnership experiences that seem to contribute most to observed relations between partnerships and developmental assets, and between partnerships and school success. Most notably, partnership help for students that goes beyond financial or material resources and includes a strong relationship-building element and involvement of students' families appears to increase students' odds of going on to college.

As was reported above (and displayed in Figure 1), we speculate that those students who receive *only* help that **"provides"** a resource (e.g., scholarships, stipends, and assistance completing college applications and paperwork) may not attain the same degree of academic success as students who *also* receive a form of help that occurs **"side by side"** with an adult (e.g., a mentor brainstorming with a student about the pros and cons of various college choices). We further speculate that those students who receive provisions and are helped by an adult at their side may attain even higher degrees of success if the form of help offered taps their **inner drives** or **intrinsic motivation** (e.g., a popular teacher's deep questioning of students' personal philosophies and hopes). We hypothesize that

movement along the continuum from **"providing"** to **"intrinsic motivation"** is facilitated by adults who scaffold students' activities and experiences toward greater self-sufficiency, self-motivation, and self-regulated learning.

These interpretations are supported by another recent mixed-methods study of urban Latino high school students (Yowell, 2002). In that study, Latino students were shown to have both dreams for higher education, and a lower level of "expected" educational outcomes. But neither their hoped-for nor their expected educational outcomes predicted their risk for school dropout, in part because students had limited practical knowledge of how to achieve either their dreams or their more realistic educational goals. Greatly adding to what Yowell called this specific "procedural knowledge" of what steps to take, and helping students do so, may be one of the mechanisms by which "side by side" and "inner drive" help given through partnerships raises students' likelihood of achieving even modest educational goals.

One of the challenges faced by Project GRAD, Davis High School's primary business partnership, is students' struggle to remain in college once they are accepted, even when they have a scholarship. Although **"side by side"** help may be an improvement over simply **"providing"** help**,** and seems associated with a higher level of school success (college entrance), we suspect it may not build the self-regulation and intrinsic motivation required to "stay the course" and graduate from college. In addition to entering a college culture where "pushing" (reminding) and "accompanying" students are not typical from teachers and administrators, as they have been at Davis, students are entering a competitive culture of higher education as a minority. They are coming from communities where their peers are working, earning money, and starting families. Cultural differences from them and their college peers, and lack of adequate academic preparation, are just two of the myriad potential explanations for the lack of retention in college. However, based on this study, we find that the modality and nature of assistance provided *to and with* students through partnership activities warrants further study. Students who internalize helpful activities and experiences as intrinsically motivating may be better prepared to expand their visions of academic and professional possibility.

We discussed earlier that students also learn about the world of work from several sources outside of school partnership exposure, mostly related to family. Repeatedly, students mentioned that parents would not allow them to work because it would distract them from school. The underlying philosophy here may be that by working assiduously at school and sacrificing the financial benefits of an after-school job, students will be in better positions to achieve the benefit of higher education leading to higher status jobs, demonstrating a simultaneous value for upward mobility and maintaining family and community roots. Even when students are not permitted to work, they learn the demands placed by work on stamina, attention, and concentration. Although many had learned about the work world from family and others, it appears that the business partnerships offer a way to combine work and school, in a way that does not necessarily compromise students' energy and attention. Further, school-business partnership activities may, in fact, facilitate a stronger commitment to education by revealing opportunities and reinforcing the importance of college in attaining them.

Potentially Buried Impacts of School Business Partnerships

The relationship between Cole and Ketelson and others in the private sector at Tenneco/El Paso illustrates the ways in which characteristics of business practice: efficiency, product, profit, competition, accountability and marketing were adopted and adapted by Cole for the purpose of school reform at Davis High. The relationship also illustrates how Ketelson, a career businessman, learned that improving school success had be envisioned from a relational and ecological perspective on learning.

We have learned from this study of GRAD and Davis High that the "success" of school-business partnerships is highly dependent not only on the people who envision, initiate and implement such activities, but also on the people who build upon this base and take student learning to the next level--namely teachers. During student interviews, a number of teachers' names were repeatedly referenced as important adults in students' lives. Students detailed how these teachers challenge their thinking, push

them to aim higher, and go above and beyond the call of duty to support students' intellectual, social, and emotional development. These are the teachers who help students attain the high expectations of the school as set by its business partners.

If "good teaching is good teaching", as one teacher pointed out, i.e., it would occur in the absence of partnerships, how do school-business partnerships contribute to effective teaching? Our qualitative data suggest that, in addition to providing material and financial support for teachers' efforts, school-business partnerships help create higher expectations among faculty for students and for faculty themselves. When good teaching is set in a school culture which values higher education, establishes vital partnerships within the community in order to support such goals, and creates a network of collaboration among faculty, teachers have the added motivation, resources, and support in order to become better teachers.

What is consistent about the business partnerships at the high school is the fortitude and longevity of the relationships it has spawned. Our interviews and focus groups strongly suggested that the surrounding community has come to expect and depend on the ongoing support of these partners. In essence, the gamut of partnership activities has contributed to a change in mindset among all players-- students, parents, teachers, and administrators alike. Higher education is now seen as a viable option for many students, and there is no doubt that partnerships played a critical role in nurturing this change. Many would argue that the catalyst of this change was two-fold: Project GRAD, under the leadership of James Ketelson, and the visionary savvy of former Principal, Emily Cole. The combined effect of this business-school partnership was powerful and paved the way for many more partnerships within Davis High School.

In many ways, the story of school-business partnerships at Davis High is an illustration of the "new age" of partnerships now emerging, according to two recent Secretaries of Education. Lamar Alexander and Richard Riley observe that neither businesses nor schools are satisfied today with business simply "writing a check." Instead, school and business leaders expect business partners to engage in deep involvement with students, with teachers, with curriculum, and with the community in support of a "shared understanding of values and culture to support mutual needs" (Alexander & Riley, 2002, p. 36). In this study, we have examined how a particular mix of school-business partnerships in one largely ethnic urban community appears to have reflected this newer principle of school-business partnerships. Both the quantitative and qualitative data suggest that these partnerships appear to have opened the doors of learning for students who otherwise may not have done either so well in high school, or formulated plans to pursue higher education.

Both the self-report quantitative data and the results of our qualitative fieldwork align in suggesting that those partnership experiences probably affected students' school success both directly and indirectly through enhancing key developmental assets in students' lives. These results support the hypothesis that a broader focus on maximizing the contribution of school-business partnerships to students' physical, cognitive, emotional, and social well-being can pay academic and other dividends over and above the benefits of more traditional "school-to-work" efforts. Further research is needed to confirm these results and investigate whether these relationships among partnerships, developmental assets, and school success operate similarly in suburban or rural schools, and with students populations that have greater socioeconomic and racial/ethnic variation. But our results are promising in suggesting that, in this relatively low-income, urban, Hispanic and African American population, school partnerships with businesses can make a difference, in school success and in students' overall developmental well-being.

Appendix I

Table 7 Summary of Major School-Business Partnerships at Davis High School* *See following narrative for details on these partnership activities.			
Partnership	**Components/Activities**	**Goals**	**Beliefs**
Project GRAD	Overall Program	(1) To increase student test scores above national norms (2) To reduce drop-out rate (3) To encourage students to pursue higher education	To promote high school graduation and college attendance, especially among low-income urban youth, the intervention needs to begin in kindergarten, address students needs in a variety of domains, and become an integral piece of the school culture
	El Paso Energy Foundation College Scholarships	To help students finance a college education	Without financial assistance students can not view higher education as an option
	Business Mentoring	(1) To provide students with role models from business world (2) To provide students with additional academic guidance	Students, especially those from low-income urban communities, can benefit relationships with employees from a range of business settings

	Consistency Management & Cooperative Discipline	To create disciplined, caring, and respectful classroom environments	Teachers and students share responsibility for learning and classroom organization
	Communities in Schools	To prevent school dropout by addressing barriers in students lives through: (1) counseling, (2) health and human services, (3) family involvement, (4) employment services, (5) enrichment, and (6) educational enhancement	Students academic success is dependent on their social, emotional, and physical health
	Parent University	To provide parents with the skills and resources to better serve their childrens educational interests	In order to convince and enable students to attend college, parents must also be convinced of the benefits of a college education
	Jesse H. Jones Summer Institutes	(1) To prepare students academically for the upcoming year (2) To expose students to a local university setting	Students, especially those from low-income urban areas, can benefit from college exposure and additional academic preparation during summer months
	Gear Up	(1) To improve students math and reading scores on standardized tests by aligning curriculum and testing topics; (2) To provide interested students with tutors to improve test scores	Students standardized test scores can be raised if Math and English departments are given academic resources, internal support, and materials that integrate testing and curriculum topics

Table 7 Summary of Major School-Business Partnerships at Davis High School* *See following narrative for details on these partnership activities.			
Partnership	**Components/Activities**	**Goals**	**Beliefs**
Hotel and Restaurant Management Magnet Program	Internships at the University of Houston Hilton College for Hotel and Restaurant Management	(1) To provide students with skills to start, market, and manage tourism and hospitality-related businesses (2) To encourage and prepare students for higher education	Parents in Houston are offered a range of options for their childrens public school education. Magnet programs, chiefly focused on academic learning, provide students with opportunities to develop special talents.
Pregnancy Education and Parenting (PEP)	A range of services including school-wide sexuality training as well as parent education classes, childcare, tutoring, transportation, job placement, mental health services, and case management for parenting teenagers	(1) To prevent school drop-out (2) To prevent unintended pregnancies among teenagers	The prevalence of teenage pregnancy is an issue of concern for the high school. Parenting teenagers potentially need a variety of supports to help prevent them from dropping out of school. There is some disagreement among the partners (sponsored by Plan ned Parenthood of

			Southeast Texas, CIS, and the school district) as to what form of birth control should be taught: abstinence or contraceptive use.
Cisco Networking Academy Program	Cisco Certification Network Associate (CCNA) program	(1) To prepare students for opportunities in internet technologies (2) To create a well-trained workforce for building and maintaining computer networks	The internet technology industry has more job openings than qualified applicants to fill them.
	Cisco Soft Skills program	(1) To provide students with mentors from the internet technology business world, for both teaching and job shadowing purposes (2) To help students develop soft skills, such as job etiquette, teamwork, and oral and written communication	
HoustonWorks	Youth Opportunity (YO!) Program	(1) To provide under-age students with job readiness training (2) To help students identify jobs of interest and prepare applications	Students can benefit from additional training outside the classroom. HoustonWorks provides students with job opportunities in order to make them more marketable in the future and to provide a better-trained workforce.

	Teenage Opportunity for Public Service (TOPS)	To provide high achieving students with opportunities to work with public officials	
	Job Fairs	To connect students with multiple, potential employers in one setting	
	Coca-Cola Values Youth Program	To provide elementary students with high school tutors	

Table 7 Summary of Major School-Business Partnerships at Davis High School* *See following narrative for details on these partnership activities.			
Partnership	**Components/Activities**	**Goals**	**Beliefs**
Texas Scholars	Texas Scholars Program	(1) To encourage students to take more demanding classes in high school and recognize them for doing so (2) To prepare students for technical school, community college, university, or workforce	The TEXAS Scholars program operates from the philosophy that it is better for students to pass an academically challenging class that better prepares students for post-school plans than to get a higher grade in a less substantive class. Students will onl y able to find well paying

			jobs in a global economy if they have a solid academic base.
	Toward EXcellence, Access and Success (TEXAS) Grant Program	To provide grant money to qualified students with demonstrated financial need so that they can pursue higher education in Texas	
Cornell University Summer College	6-Week Summer College Program	(1) To expose high school students to college life, both inside and outside the classroom (2) To offer students the opportunity to learn more about a field of interest through an Exploration Seminar, which may help students clarify academic and career	Giving students the opportunity to experience college life prior to submitting applications allows students to make more informed choices in terms of college selection and academic/career track
		plans	
Museum of Cultural Arts, Houston (MOCHA)	ArtworkZ Public Art & Design Program	To provide students mentoring relationships with professional arts to produce community-based public art	To create public art that enhances cultural awareness, stimulates community development, and establishes partnerships between arts, communities, schools and businesses (MOCHA brochure), particularly for inner city youth

Close Up	Great American Cities program	(1) To promote students responsible and informed participation in democratic processes (civic education) (2) To provide low-income, urban students the opportunity to participate in Close Ups Washington, DC week-long fieldtrip	All students need to be given opportunities to see democratic processes in action in order to understand how the political system works and to encourage students to become participants in their own communities
YMCA-sponsored programs	Youth and Government	To provide students with a hands-on opportunity to participate in democratic process by writing and presenting an original bill in local and state competitions	The zeal for democratic process must be passed on from one generation to the next. Students benefit not only from classroom learning, but also the opportunity to experience democratic processes first-hand.
	Teen Court	To provide students with opportunities to hear and try real student disciplinary cases	

Table Seven Partnership Activities

Project GRAD

Project GRAD ("Graduation Really Achieves Dreams") is the largest and most influential business partnership with Jefferson Davis High School. It began in 1989 as a partnership between Tenneco Corporation (now El Paso Energy), University of Houston-Downtown, and the Houston Independent School District (HISD) to bring system-wide change to the Jefferson Davis High School feeder system (elementary and middle schools). GRAD's objectives are to increase students' test scores above the national norms, reduce dropout rates, and support higher education. GRAD combines resources and expertise from local universities, foundations, corporations, community and national non-profit organizations, and federal and state government to work in partnership with school feeder systems. So, while GRAD is a business partner in and of itself to Davis, its very fabric is woven out of community and business partnerships. For this reason, it is challenging to tease out the various activities and services it offers to Jefferson Davis High School. GRAD is an all encompassing model for community change and school-wide reform.

The core activities that compose Project GRAD at Davis High School include college planning assistance, yearly college scholarships to students who maintain a 2.5 GPA, summer enrichment programs ("Summer Institutes"), a mentoring program with local business professionals, a Parent University, and Communities in Schools (CIS).

Parent Support and Outreach

We learned from interviews and focus groups that parents are often viewed as undermining students' connection to school, for both cultural and economic reasons. In response, CIS has developed activities to raise awareness and educate parents around the importance of higher education and vocational training. At the beginning of each school year, CIS facilitates a Walk for Success where they visit every first year student in their home and introduce the family to Project GRAD. They also survey the parents at this time, in an attempt to assess the type of supports they need in the area of vocational and educational training. CIS offers classes through a "Parent University" at the high school in ESL, computers, and career development.

Guaranteed College Scholarships

Each year, El Paso Energy Foundation, gives out approximately 175 scholarships to graduating seniors. In order for students to qualify for this scholarship, they must attend two Summer Institutes, take the PSAT college entrance exam their sophomore or junior year, and complete all HISD academic requirements along with several added course requirements in science, foreign language and technology. Students must graduate in four years or less with a minimum 2.5 GPA, and enroll in an accredited college or university within one year. Most students sign up for the scholarship program during the Walk for Success their freshman year of high school; however, they may enroll at any time through the Scholarship Coordinator, who is a full time Project GRAD staff member based in the high school. Parental involvement is now a required component of Project GRAD and parents must attend at least two school meetings or events within each academic year in order for their child to qualify for the scholarship. When Davis High School introduced the scholarship program in 1990, only 20 students went to college. By 1992, the first year that the El Paso scholarship was given to graduating seniors, 101 students were planning on attending college.

Summer Institutes

Attending two Summer Institutes is a requirement for participating in GRAD and receiving the college scholarship. Most of the students attend the Summer Institutes locally at University of Houston’s downtown campus, while others have attended summer programs at universities such as Cornell, Rice, and Northwestern. The Jesse Jones Summer Institute enrichment program is a 4-week academic enrichment program in which Davis students take classes in reading and math, English as a Second Language (ESL), or advanced placement science courses. Students receive a stipend for their attendance in order to offset the family pressure to earn income during these summer weeks. Students attend labs and classes taught by college professors with fellow high school students, however some students expressed disappointment that that the Institute was not an authentic college experience because students do not interact with undergraduate students, stay in dorms, or take college level classes.

Students who attend the Cornell, Rice or Northwestern Summer Institutes do live in dorms on campus while attending classes, and according to students, these programs are extremely rigorous. The Rice summer program, for example, is four weeks of intensive math study. The Northwestern program may combine a field placement with intensive study, and the Cornell program involves a close working relationship with a faculty member through “Exploration Seminars”. Students who attend are the highest achieving students at Davis High School. In interviews, students described building friendships, working

hands-on in labs, and attending classes at a real college as meaningful and life changing. Most importantly for this population, the Institutes give high achieving students a "trial run" of living away from home for an extended period of time.

Mentoring

Thirty employees, primarily from El Paso Corporation, participate in a twice a month mentoring program which takes place during the lunch break at Davis High School. Mentoring is seen as providing adult business role models to students who may lack support from home, or in the classroom, around completing high school and continuing their education. Some mentors have met with their mentees consistently over four years of high school, but the majority seems to have a less consistent connection with their mentees, and some actually mentor a group, often at the students' requests. There is a range of employees participating in the mentoring program, including administrative assistants, managers, and executives. The mentor focus group indicated that the program would benefit from increased structure and clarification about objectives. Some mentors viewed themselves as suited to college-bound students, but found themselves matched with students who were not as invested in school. Others were disappointed that their mentees were, in some cases, pregnant. However, some mentors were comfortable addressing a wider range of student needs, in terms of life skills and vocational interests. Inconsistency of meeting due to mentee or mentor absence was another structural problem, and mentors agreed that they would benefit from ongoing peer support by meeting together regularly to discuss their matches.

The Learners' Community

Students who attend college locally at University of Houston-Downtown are, in some ways, at higher risk for discontinuing their enrollment than those who live away at college. Family stressors and the economic pressure to work and contribute to their financial support often undermine students' retention. The Learners' Community was established in 2000 through a Title V grant to aid freshmen in their transition to college. Faculty members collaborate across disciplines by linking classes and developing curricula that bridge academic contexts and students participate in small working groups to build support among peers and connection to faculty. Mentors maintain regular contact with students during their first year to offer academic and emotional support as well as to steer students toward financial counseling, should economic stressors threaten their continued enrollment. In some courses, students are provided laptop computers to reinforce a strong connection to school from home.

Communities in Schools (CIS)

CIS is an independently funded dropout prevention program that receives supplemental funding from Project GRAD at Davis High School. CIS defines six components of their program: supportive/guidance counseling, health and human services, parental and family involvement, employment preparation, enrichment, and educational enhancement. Direct activities include individual student counseling, scholarship and college application guidance, substance abuse programming, academic tutoring, employment support, pregnancy prevention, and parenting support. They also refer families to other resources, addressing such issues as citizenship, housing, job skills, and ESL. In addition, CIS has built partnerships with other organizations, including the Houston Council on Drug and Alcohol Abuse and Planned Parenthood. The latter organization currently runs a pregnancy education program at Davis and has begun bringing organizations to campus in order to address sexuality and serious issues that face teen parents. They have also contributed to the school's efforts to educate teen mothers about prenatal health and risky behavior.

Other Partnerships

HoustonWorks/WorkSource
A new partnership at Davis, WorkSource/HoustonWorks has provided vocational training and job placement for both students and their parents since the spring of 2002, although HoustonWorks has been in operation since 1985. No other program at Davis appears to provide the resources or opportunities for mid-achieving students to gain this degree of exposure to a range of local job options. In a short time, has evolved from a summer program annually serving between 8,000 and 10,000 youth to a year-round program serving fewer students more intensively. Federally funded by the Department of Labor, HoustonWorks has recently partnered with Project GRAD and CIS and currently serves 32 students at Davis.

A representative explained that services are free to students once they enroll. HoustonWorks relies heavily on word of mouth recruitment from current participants, who are offered incentives (e.g., movie passes) for bringing in new students. The program values parental involvement, and asks parents to agree to support their children's participation in the program by co-signing the contracts completed by students.

The center offers two primary job placement services. HoustonWorks provides 14-15 year olds classroom based job training, and pays them minimum wage to learn skills they will need to enter the job market when they are of age. Older youth earn a higher wage at a paid internship work experience, which is supplemented by an intensive workshop where they also learn entry-level skills, such as how to write a resume. In addition, a Job Developer schedules interviews for them and helps them prepare job applications, based on the individual interests and needs of the students.

Once at work, interns potentially receive further mentoring from their employers. Working closely with HoustonWorks, employers likewise benefit from helping youth in the community because the program pays the students' salary, insurance and social security costs, and acts as a mediator and counselor to its students. HoustonWorks also provides students with job fairs, tutoring (especially with math and the SAT), fieldtrips to college settings, speakers from businesses and the community, diversity workshops and parenting classes. Through the Teenage Opportunity for Public Service (TOPS) program, students work with public officials over the summer. And, students are also paid to tutor at elementary schools as part of a project formerly funded by Coca-Cola.

Students who pursue studies at vocational schools are eligible for two-year scholarships from HoustonWorks, which may reach students that opt not to pursue four-year colleges and assist their advancement in the vocational job market. HoustonWorks appears to offer an education that Davis students cannot receive in their academic classes, enabling them to be more marketable in trade professions and improving the level of training they will have as entry-level workers.

Pregnancy Education and Parenting (PEP)

PEP, a collaborative program between Planned Parenthood, Houston Independent School District and CIS, is designed to prevent school dropout and unintended pregnancies, which have been longstanding challenges at Davis. The director counsels between 50 and 65 pregnant and non-pregnant girls around issues of pregnancy, parenting and birth control, seeing 50% of them regularly. The biggest problem cited by the director is maintaining the school attendance of teen mothers. Additionally, she identifies girls' lack of awareness around the topics of sex and sexuality as factors contributing to their irregular use of birth control. She believes that parents do not discuss sex with their daughters and laments that there is no sexuality education in the middle school.

One of the most helpful services provided by PEP seems to be the tutors that work with girls on maternity leave. These tutors spend a half-day with the girls, shuttling back and forth between school and home to bring their assignments. Girls seem to appreciate this service greatly and have a difficult time giving it up when they must return to regular classes. A primary focus of the program is to prevent second pregnancies through contraception education.

Cisco Systems

The Cisco Networking Academy was introduced at Davis in 1999 to train students in the Cisco Certification Network Associate (CCNA) program, designed to help students build Internet technology skills. In fact, students in the Cisco program maintain the computers at Davis, providing them with real-world technical problem solving experience. Operating on donated computers that students renovated, the program helps youth to strengthen their math, science, reading, writing, and teamwork skills, in order to succeed in higher education and in technology professions. According to the director, the two- year CCNA certificate program is highly prestigious and rigorous. Students must demonstrate an 11th grade reading and math proficiency, and are selected from an interview in which they read from a textbook and discuss the content with the program director. Although the certification could be useful to students pursuing trade work immediately after high school, it appears that primarily college-bound students are enrolled.

Developed jointly by Cisco and TECH CORPS, the Cisco Softskills program operates as a companion curriculum to the CCNA program. Volunteer career coaches from local businesses work with students to build oral and written communication, teamwork, “life-long learning,” strategies for professional success, and professional etiquette. The Softskills program strives to mentor approximately ten youth with local professionals from the Greater Houston Partnership, which provides opportunities for the students to “shadow” them at work in the information technology field. The program has exposed students to common business problems and engaged them in work related skills, such as rewriting poorly constructed memos.
Interviews with representatives revealed that the program has not been as effective as possible, because the adult-student ratio has been too high.

Museum of Cultural Arts Houston (MOCAH)

MOCAH is a non-profit arts organization founded in 1999 to offer communities art-related programs and events, in order to enhance “creative awareness [and] social health” (http: www.art-workz.addr.com). Many local individuals and groups have contributed supplies, money, and time to MOCAH, including Project GRAD, HISD, and state representative Jessica Farrar.

One of the more visible programs at Davis, MOCAH’s ArtworkZ program commissions professional artists to assist students in designing murals depicting issues that are important to their communities. In addition to fostering creative awareness, the program also strives to promote morale, citizenship, and teamwork among students. This program has successfully deterred vandalism and graffiti at Davis and appears to support pride in the school campus. The research team attended the dedication ceremony of the completed mural at Davis High School honoring the students and the artist who collaborated on the yearlong project.

Close Up’s Great American Cities Program

The Close-Up Foundation emerged in 1970 to promote students' participation in the democratic process and to increase awareness of world issues through exposure to government in action. In this program, ten Davis students participate in a weeklong educational experience about government in Washington DC. Students attend House meetings, talk to senators, visit national monuments, and participate in sessions with professors and scientists from Georgetown and George Washington Universities. In addition, students meet other youth from across the country and together discuss civic engagement.

Magnet School for Hotel/Restaurant Management and Travel

Davis is one of twenty-two Magnet high schools in Houston offering students specialized training in such areas as the performing arts, engineering, health, business, and criminal justice. The Magnet program at Davis offers a hotel and restaurant management curriculum in partnership with the University of Houston College for Hotel and Restaurant Management. Hilton hotels created the program, which is now ranked with Cornell University for first place as the best hotel management and tourism school in the country. Davis students enrolled in the Magnet program follow the Advanced Texas Scholars College-Bound Curriculum and are eligible for the $4000 El Paso Energy Corporation scholarship for higher education. Students who intern at the University of Houston Hilton in their senior year earn college credit in both paid and unpaid positions. The internship is an opportunity for students to work with world-renowned chefs and experienced hotel managers, spending two weeks in each area of the hotel: housekeeping; front-desk; management; restaurant; and the kitchens. One strong finding from this study of school business partnerships is that students enrolled in the Magnet program are heavily supported by teachers and staff in terms of attention to their program of study and their higher education planning.

Texas Scholars Program

Texas school districts and some fifty businesses jointly developed the Texas Scholars Program, including Exxon/Mobil Company, Southwestern Bell, Texas Instruments, and Bank of America. The program has been endorsed by the HISD, Texas colleges and universities, the Texas Education Agency, and the Texas Business and Education Coalition and begins making presentations to students in middle school around higher education planning and achievement. The philosophy guiding the program is that students are better served by passing a rigorous class than receiving high grades in less challenging courses and supports the need to better prepare students for college with a strong academic foundation. Students participating in the Texas Scholars program follow a state-recommended curricular plan that focuses primarily on mathematics, science, computer literacy, and languages. There is a recognition ceremony for students who successfully complete the curricular requirements of the program and their transcripts bear a Texas Scholars' seal that may help them secure competitive jobs or entrance to state universities or trade schools. Texas scholars who prove financial need are also eligible for the Toward EXcellence, Access, and Success (TEXAS) Grant, which pays $1200 a term for 6 years at a private college, public university or approved technical schools.

Table 8 Analysis of the Relationship between School-business Partnerships and Search Institutes 40 Developmental Assets				
External Assets	**Category**	**Asset Name**	**Relevant Partnership Activities that Can Support the Developmental Asset**	**High Impact**

	Support	1. Family Support	HoustonWorks: Job placement program requires parents to sign a contract supporting childs participation. HoustonWorks: Offer parents GED, ESL, and computer skills classes which may enable parents to better support their childrens academics. Paren	***
			t University (Project GRAD): Parent workshops on topics such as adolescent development, parenting skills, college life, and English language skills aim to provide parents with knowledge to help them support their childrens higher education. Communities	
			in Schools (CIS) (Project GRAD): Yearly Walk for Success introduces 9th grade parents to Project GRAD and enrolls their children in the scholarship program Project GRAD: Siblings who have participated in the school-business partnership in previous y	
			ears inform younger siblings of available opportunities and services	
		2. Positive Family Communication	Parent University (Project GRAD): Parent workshops offered on adolescent development and parenting skills to help parents talk with their adolescent children CIS (Project GRAD): Offer or provide referrals for individual or family counseling	
		3. Other Adult Relationships	Project GRAD: Scholarship Coordinator provides students with scholarship information targeted for individual students Project GRAD:	***

			Mentors offer students academic (e.g., high school requirements), life skills, higher education (e.g., scholarship and	
			college applications), career, and personal guidance Project GRAD: Teachers who are directly funded by Project GRAD provide students with additional academic help and college guidance Cornell, Northwestern, and Project GRAD Summer Institutes: Provid	
			e students with opportunities to build relationships with college faculty CIS (Project GRAD): Licensed social workers provide students with counseling services. College specialist offers students college guidance, college visits, and application suppor	
			t Cisco Networking Academy (Cisco): Cisco Certification Network Association and affiliated Softskills Program provide students in this technology class with school-based instructors and business mentors HoustonWorks: Students have opportunity to work	
			with adults in an internship-style mentoring relationship in field of interest HoustonWorks: Job placement officers help student develop job skills and identify employment opportunities Museum of Cultural Arts Houston (MOCHA) ArtworkZ: Provides oppor	
			tunities for students to work with artists in their community Magnet Program: Students have opportunities to build	

			relationships with chefs, managers, and other hotel and restaurant working professionals	
External Assets		4. Caring Neighborhood	Project GRAD: Co-sponsors elementary-middle-high school feeder system Family Fine Arts Festival, which showcases students dance, music, and visual artwork MOCHA ArtworkZ: Supports students artwork in their own communities	
	Support	5. Caring School Climate	Project GRAD: Provides students with scholarship information and college application support Project GRAD: Mentors support individual students progression through high school, realization of post high school plans (i.e., higher education or career a	***
			dvice), and personal development Project GRAD: Sponsors student attendance of night school to make up academic credits CIS (Project GRAD): Offers six categories of student support services: supportive/guidance counseling; health and human services; p	
			arental and family involvement; pre-employment/employment preparation; enrichment; and educational enhancement Pregnancy Education and Parenting (PEP): Provides parent education, childcare, academic tutoring, transportation, job placement, prenatal coun	
			seling, mental health services, and case management for pregnant teens	

			in order to prevent school drop out and unintended pregnancies Cisco: Provides students with technology education and certification by harnessing student skills that may go untapped	
			in traditional academic classes Gear-Up (Project GRAD): Funds two teachers to support Math and English departments, including tutoring and developing consistency among classes within a discipline MOCHA ArtworkZ: Student-produced art murals on school	
			walls have cut back on gang tagging	
		6. Parent Involvement in Schooling	Parent University (Project GRAD): Offers parent workshops on how to be an educational advocate for children as well as on gang involvement, substance abuse, living in two cultures, and adolescent development Project GRAD: Possibility of higher educat	
			ion has led some parents to not allow their children to work so that students may give more time to homework and academic efforts	
External Assets		7. Community Values Youth	MOCHA ArtworkZ: Students design and produce large art murals in their own community which address issues important to youth Project GRAD: Co-sponsors feeder system Family Fine Arts Festival, which showcases students dance, music, and visual artwork	
			with emphasis on Hispanic contributions Project GRAD: Mentors	

			from several local large corporations come to the school twice a month to meet with assigned students and support their academic, career, and personal development El Paso Energy Corporation	
			(Project GRAD): Corporate-sponsored scholarships recognize students higher education potential Magnet Program: Provides students with hands-on experience with working professionals in the hotel/restaurant management field HoustonWorks: High school	
			students serve as tutors at local elementary schools HoustonWorks: Provides grants to students who pursue vocational training YMCA: Provides financial, material, and human resources support for students after-school involvement in government-related	
	Support	8. Youth as Resources	HoustonWorks: Provides job placement for students HoustonWorks: TOPS program (Teenage Opportunity for Public Service) provides students with prestigious internships in civil service sector (e.g., working for judge at courthouse) HoustonWorks: High s	***
			chool students serve as tutors at local elementary schools MOCHA ArtworkZ Mural: Students conceptualize and produce large art murals in their community that address issues important to youth and the broader community YMCA: Teen Court	

			program allows st	
			udents to hear and try school disciplinary cases with binding judgments CIS (Project GRAD): During the Walk for Success students, parents, mentors, and school staff speak with 9th grade parents about the scholarship program and serve as models for hi	
			gher education Project GRAD: Co-sponsors feeder system Family Fine Arts Festival, which showcases students dance, music, and visual artwork Project GRAD: For College Day recent graduates from the high school are invited to return to speak about t	
			heir college experiences with current students Magnet Program: Gives students opportunities to work in hotel and restaurant environments as well as run the front desk of the Magnet school Cisco: Students in this class are responsible for maintaining t	
			he school computers and network	
External Assets		9. Service to Others	HoustonWorks: High school students serve as tutors at local elementary schools CIS (Project GRAD): Students volunteer their time to speak with 9th grade parents about the scholarship program during the yearly Walk for Success MOCHA ArtworkZ: Stu	
			dents conceptualize and produce large art murals in their community that address issues important to youth and	

			the broader community Cisco: Students in this class are responsible for maintaining school computers and network	
		10. Safety	Project GRAD: A decrease in gang-related activity at the school has coincided with the introduction and expansion of business partnerships	
	Boundaries & Expectations	11. Family Boundaries	Project GRAD and other Summer Institutes: Student attendance at these summer-time institutes often requires negotiation with family members regarding wage-earning responsibilities Project GRAD: Possibility of higher education has led some parents to	
			not allow their children to work so that students may give more time to homework and academic efforts	
		12. School Boundaries	Project GRAD: Partnership played key role in feeder system model as well as curricula reform (e.g., Move It Math, Success for All), namely at the elementary school level	
		13. Neighborhood Boundaries	HoustonWorks: Local community office provides after-school job placement, job training, and recreational activities for youth YMCA: Provides financial support for civic-based after-school youth activities (e.g., Youth In Government program, Teen Court	
			) MOCHA ArtworkZ: Provides youth-centered after-school arts-based activities	
	Boundaries & Expectations	14. Adult Role Models	Project GRAD: Mentors help students track fulfillment of academic	***

			requirements, discuss college and career options, access resources, provide life skills guidance, and model genuine care for youth Project GRAD: Some students develop personal, supporti	
			ve relationships with Scholarship Coordinator, who is key connection to resources, mentoring program, and enrichment activities HoustonWorks Employers through job placement program and internship program can provide youth with positive models of fulfill	
			ing job responsibilities and serve as mentors HoustonWorks: Job training program for under-age youth provides youth with models of appropriate job etiquette, such as punctuality, proper grooming, and interview skills MOCHA ArtworkZ: Provides youth wit	
			h role models in the form of working artists and activists from the community Magnet Program: Provides students with role models from hospitality professions, including practicing chefs, hotel managers, and other hotel/restaurant professionals	
External Assets		15. Positive Peer Influence	Project GRAD: Older siblings encourage younger siblings to attend this partnership-rich high school and to seek out specific partnership activities. In choosing this school, some students leave friends who are negative influences and surround themselve	

			s with college-bound peers instead. Project GRAD: Students participating in mentoring program develop supportive relationships with other students whom they might not otherwise seek out in their small mentoring group. Students often bring friends alon	
			g to their mentoring sessions. Project GRAD: Invites recent graduates from the high school to return to speak about their college experiences with current students	
		16. High Expectations	Project GRAD: The overarching goal of this umbrella partnership is to encourage and enable low-income, urban, minority students to attend college, not trade schools. These high expectations are set within a high school where the college attendance ra	***
			te was less than 5% 10 years ago. Parent University (Project GRAD): Parents are notified of higher education possibilities for their children, which then become expectations Magnet Program: Students must apply and be accepted to enroll in the Magne	
			t program. Students are also expected to take college-bound courses to fulfill program requirements. Cisco: Students who complete the four-semester program and pass the Cisco test receive a certificate. Cisco is the most prestigious of the IT certific	
			ation programs. Texas Scholars Program: In order to receive special	

			school and state-wide recognition, students must successfully pass the state-recommended high school academic plan. The Texas Scholars philosophy is such that it is better to pass a	
	Constructive Use of Time	17. Creative Activities	MOCHA ArtworkZ: Students conceptualize and produce large art murals in their community that address issues important to youth and the broader community	
		18. Youth Programs	YMCA: Teen Court program allows students to hear and try school disciplinary cases with binding judgments YMCA: Youth in Government program allows students to draft their own bills and to compete in local and state competitions HoustonWorks: Offers	***
			fieldtrips and recreational activities in their youth center in addition to youth employment services MOCHA ArtworkZ: Provides youth-centered after-school arts-based activities	
	Constructive Use of Time	19. Religious Community	Insufficient data to say that this developmental asset is supported by school-business partnerships, but should be pursued in future inquiry	
		20. Time at Home	Project GRAD: Possibility of higher education has led some parents to not allow their children to work so that students may give more time to homework and academic efforts	
Internal Assets	Commitment to Learning	21. Achievement Motivation	Project GRAD: Program and school-wide emphasis on higher education	***

			and career exposure provides students with an additional reason to do well in school Cisco: Students are highly motivated to achieve their Cisco certification after a four semester seq	
			uence Texas Scholars Program: School and state-wide recognition, as well as college grants for students demonstrating financial need, motivates students to do well in school	
		22. School Engagement	Cisco: Students appear to be deeply engaged in learning Cisco technology materials that will earn them certification as well as working on their own individual multi-media projects and maintaining the school computers Project GRAD: Students express ke	
			en engagement in classes instructed by good teachers (i.e., dynamic, challenging, and thought-provoking). Some of these teachers receive additional funding from Project GRAD. Magnet Program: Students appear deeply engaged in learning real-world skills	
			in hotel and restaurant management	
		23. Homework	Project GRAD: Possibility of higher education has led some parents to not allow their children to work so that students may give more time to homework and academic efforts	
		24. Bonding to School	Project GRAD: Students involved in various school clubs present and work at the Project GRAD/Feeder System Family Fine Arts Festival, outside of	

			regular school hours Project GRAD: Students participate on Project GRAD information panels and discuss wha	
			t the school-business partnership has provided them MOCHA ArtworkZ: Students participate voluntarily on the school mural project	
		25. Reading for Pleasure	Insufficient data to say that this developmental asset is supported by school-business partnerships	
	Positive Values	26. Caring	Project GRAD: Although this asset seems to be deeply embedded with the Hispanic culture and community, the school-business partnership encourages students to think about how they can help others, with a college education. Project GRAD: Students exhib	
			it pride in high school graduation and/or college attendance	
		27. Equality and Social Justice	Insufficient data to say that this developmental asset is supported by school-business partnerships	
		28. Integrity	Insufficient data to say that this developmental asset is supported by school-business partnerships	
	Positive Values	29. Honesty	Insufficient data to say that this developmental asset is supported by school-business partnerships	
Internal Assets		30. Responsibility	CIS (Project GRAD): Offers a range of services (i.e., supportive/guidance counseling; health and human services; parental and family involvement; pre-employment/employment preparation; enrichment; and educational	***

			enhancement) to help students manage the	
			ir own well-being and to promote healthy coping in the face of stressors CIS (Project GRAD): Offers daycare for parenting teenagers so that they might both complete high school and care for their children Project GRAD: Mentors assist students in track	
			ing their high school transcript in order to ensure that graduation and scholarship requirements are met. Project GRAD: Scholarship Coordinator encourages students to take control of their academic futures by matching students with appropriate scholar	
			ships and then helping them apply HoustonWorks: Job training and job placement programs provide students with opportunities to take on financial responsibility and/or contribute to family Pregnancy Education and Parenting (PEP) program (CIS): Contrac	
			eptive education can help girls make informed decisions regarding sexual activity in relation to their academic/career plans	
		31. Restraint	PEP (CIS): Girls may not refrain from sexual activity, but are given access to information regarding safe sex practices and how to go about getting birth control	
	Social Competencies	32. Planning and Decision Making	PEP (CIS): Contraceptive education can help girls make informed decisions regarding sexual activity in relation to	***

			their academic/career plans. Project GRAD: Scholarship Coordinator helps students identify scholarships in order to make college atten	
			dance financially feasible Project GRAD: Mentors talk with students about their academic and career goals and help student identify the steps to reach those goals Project GRAD and other Summer Institutes: Summer Institutes, some directly and some indi	
			rectly, prepare students for what college life will be like. One institute provides students with specific strategies for managing time, completing academic work, and balancing school and work, before leaving for college. Texas Scholars Program: Helps	
		33. Interpersonal Competence	PEP (CIS): Offers class to teen parents that promotes better communication skills related to parenting Project GRAD: Students who are heavily involved in Project GRAD activities have the opportunity to develop leadership skills	
Internal Assets		34. Cultural Competence	Project GRAD: Heavy emphasis on college education encourages low-income youth, primarily second-generation, to consider and/or adopt middle/upper class American values regarding education. CIS (Project GRAD): Provides students with access to life sk	
			ills resources including ESL classes,	

			computer skills training, and citizenship application procedures Summer Institutes: Out-of-state summer institutes give students opportunity to attend class, live, and interact students from various geographic and	
			ethnic backgrounds	
	Social Competencies	35. Resistance Skills	Project GRAD: Possibility of attending college may motivate some students to consciously remove themselves from negative influences	
		36. Peaceful Conflict Resolution	Insufficient data to say that this developmental asset is supported by school-business partnerships	
	Positive Identity	37. Personal Power	PEP (CIS): Girls may not refrain from sexual activity, but are provided with information regarding safe sex practices and how to go about getting birth control in order to avoid unintended pregnancies. Girls also have the support of the school daycare	***
			in order to be able to finish high school. Project GRAD: Mentors may help empower students by helping students to make informed choices El Paso Energy Corporation (Project GRAD): The guaranteed corporate-sponsored scholarship for meeting minimum cours	
			e requirements makes college, first and foremost, financially feasible for students, allowing students to use more substantive reasoning to decide on the pursuit of higher education. Prior to the school-business partnership, the cost of college was the o	

			ne of the principal deterrents in students pursuits of higher education. HoustonWorks: Job placements and internships offer students job experience that may provide financial stability and/or direction for future educational/career path Cisco: Studen	
			ts are given the opportunity to earn a prestigious certificate that carries weight in the internet business world Close-Up: Provides students with opportunity to see democratic process in action and potentially instill knowledge of individuals role in	
		38. Self-Esteem	CIS (Project GRAD): Licensed social workers provide individual psychological counseling	
		39. Sense of Purpose	Project GRAD: Encourages students to continue with higher education, providing them a definitive post-high school track. HoustonWorks: Job placements and internships may offer students a sense of satisfaction, productivity, and accomplishment not of	
			fered in other areas of their lives. Job experience also provides possibility of higher income to purchase cars, homes, and other necessities for families Texas Scholars Program: Encourages students to continue with higher education, offering grants to	
			students who demonstrate financial need, and provides students with recognition for completing state-recommended high school academic	

			plan	
	Positive Identity	40. Positive View of Personal Future	Project GRAD: The availability of scholarship money and program support to reach college may provide students with a positive outlook for the future Cisco: Passing the Cisco Certified Networking Associate exam makes students eligible to work with Cis	***
			co routers for any major corporation, which may provide students with a positive outlook on their future career potential HoustonWorks: The availability of grant money to support vocational training may provide students with a positive outlook for the f	
			uture Magnet Program: Offers students hands-on experience in hotel and restaurants which may provide students with a positive outlook on their future career potential Texas Scholars Program: Availability of grant money and distinction among high schoo	
			l graduates may provide students with positive outlook for the future	

Appendix II

Gender and Grade Differences

Although not the focus of the study (and not presented in tabular form), there were some notable differences by gender and grade.

Developmental Assets

Female students at Davis had a higher average number of assets than did male students (18.6 and 17.3, respectively), a result that is consistent with gender differences found in Search Institute's large aggregate data set. Girls were especially more likely to say they experienced the "external" assets of family boundaries, school boundaries, adult role models, religious community, and time at home.

They were also more likely to experience the "internal" assets of achievement motivation, school engagement, caring, equality and social justice, integrity, restraint, interpersonal competence, cultural competence, and resistance skills. In contrast, boys were more likely to report the external assets of a caring neighborhood, youth as resources, safety, and youth programs, and the internal asset of a sense of purpose.

By grade, the most notable difference was that 12th graders had a significantly higher average number of assets (19.8) than students in any other grade (9th=17.9, 10th= 17.7, 11th= 17.2). This result is not consistent with the Search Institute aggregate data set, and may reflect the effects of differential dropout rates. Being based in an urban, inner-city high school, a greater proportion of students who could have been in the 12th grade for this study would have already dropped out, compared to the large aggregate sample that is skewed more toward smaller communities whose dropout rates are likely to be lower. As a result, the students in the urban sample who make it to the 12th grade are likely to be those with sufficiently high skills, motivation, and support, that is, considerable assets.

Partnership Experiences

There were very few gender and grade differences in reported exposure to partnership experiences, or the impact students said those experiences have had on them. Girls were more likely to report having had several mentors, and having heard several times about scholarships offered by businesses. They also were more likely to have talked to an adult about careers they were interested in, more likely to have talked tot heir parents about going to college, and more likely to plan to attend a 4-year college after graduation than were boys.

By grade, the only differences in exposure to partnership experiences were that 9th graders were more likely than 10th or 11th graders to have heard a presentation by a businessperson in the last school year, and 10th graders were more likely than 11th graders to have taken a career interests survey. For a handful of possible impacts these partnership experiences could have had, 12th graders generally reported more of the impact than 9th graders, such as being giving challenging tasks, knowing how to use a computer, and having discussed college with a teacher. However, these were scattered differences rather than a consistent pattern.

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